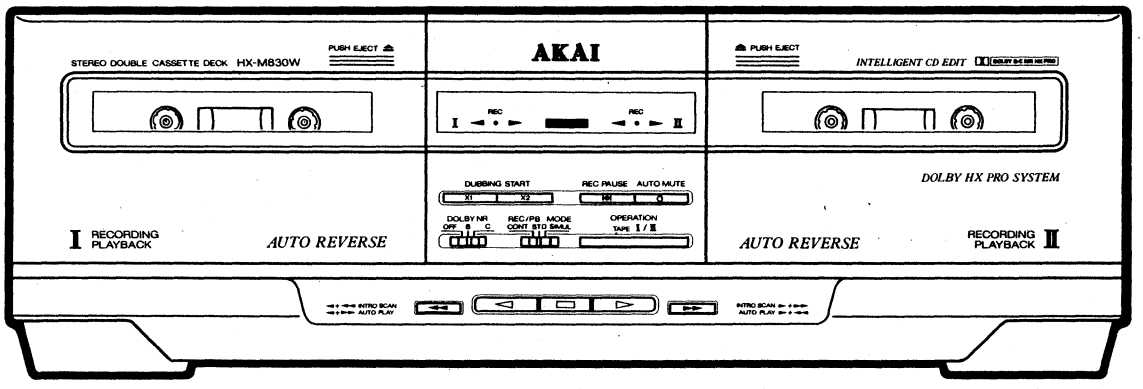
HX-M630W
HX-M830W

AKAI SERVICE MANUAL



MODEL HX-M830W

STEREO DOUBLE CASSETTE DECK

MODEL HX-M630W
MODEL HX-M830W

SPECIFICATIONS

MODEL HX-M630W		MODEL HX-M830W	
Track system	4 track 2 channel stereo	Track system	4 track 2 channel stereo
Heads		Heads	
TAPE 1	HD head for playback x 1	TAPE 1	HD head for recording and playback x 1 Erase head x 1
TAPE 2	HD head for recording and playback x 1 Erase head x 1	TAPE 2	HD head for recording and playback x 1 Erase head x 1
Motors	Electronically controlled DC motor x 2	Motors	Electronically controlled DC motor x 2
Wow & flutter		Wow & flutter	
TAPE 1	0.18 % (DIN), 0.09 % WRMS	TAPE 1	0.14 % (DIN), 0.06 % WRMS
TAPE 2	0.14 % (DIN), 0.06 % WRMS	TAPE 2	0.14 % (DIN), 0.06 % WRMS
S / N ratio	57 dB	S / N ratio	57 dB
Dolby B type NR switch ON	Improves up to 5 dB at 1 kHz, 10 dB above 5 kHz	Dolby B type NR switch ON	Improves up to 5 dB at 1 kHz, 10 dB above 5 kHz
Dolby C type NR switch ON	Improves up to 15 dB at 500 Hz, 20 dB at 1 kHz to 10 kHz	Dolby C type NR switch ON	Improves up to 15 dB at 500 Hz, 20 dB at 1 kHz to 10 kHz
T.H.D	Less than 0.7 %	T.H.D	Less than 0.7 %
Frequency response		Frequency response	
Normal	30 Hz to 14,000 Hz ± 3 dB	Normal	30 Hz to 14,000 Hz ± 3 dB
CrO_2	30 Hz to 15,000 Hz ± 3 dB	CrO_2	30 Hz to 15,000 Hz ± 3 dB
		Metal	30 Hz to 15,000 Hz ± 3 dB
Power requirements	Supplied from amplifier	Power requirements	Supplied from amplifier
Dimensions	360 (W) x 117 (H) x 295 (D) mm	Dimensions	360 (W) x 117 (H) x 295 (D) mm
Weight	2.9 kg	Weight	3.2 kg

*For improvement purposes, specifications and design are subject to change without notice.
*Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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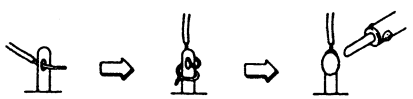
★ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts indentified by the ⚠ (*) symbol are criti cal for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors,etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors,fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, soldedr oplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.

★ INFORMATIONS

SYMBOLS FOR PRIMARY DESTINATION

Primary destnations of units are indicated with the following alphbetic.

Symbol	Primary Destinations
A	USA
B	UK
C	Canada
E	Europe (except UK)
J	Japan
S	Australia
V	Germany
U	Universal Area
Y*	Custom version

[PRECAUTIN ABOUT THE POWER SUPLLY]

Power supply and power control data for the HX-M630W/M830W are supplied from the amplifier and tuner. Therefore when repair of the HX-M630W/M830W is necessary, repair should be made together with the amplifier and tuner. To repair the HX-M630W/M830W without the tuner, use the following procedure.

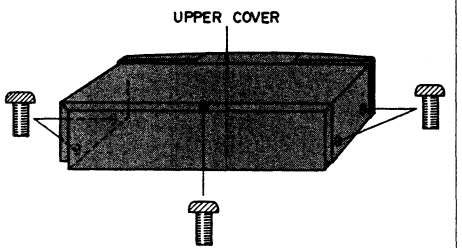
1) While pushing the G.E REC button on the amplifier, press the POWER button on the amplifier to turn the power of the amplifier on.
2) Remove the cover of the HX-M630/M830 and short the following main circuit board test points.
   HX-M630.....short JW29 and JW30
   HX-M830.....short JW118 and JW119

To turn off the power of the amplifier and HX-M630W/M830W, the AC power cord must be disconnected.

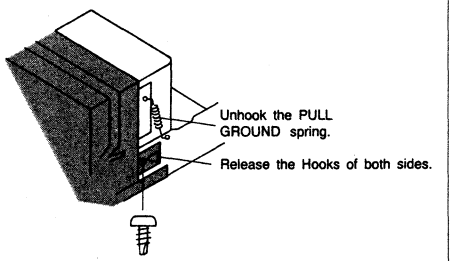
I. DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in reverse order.

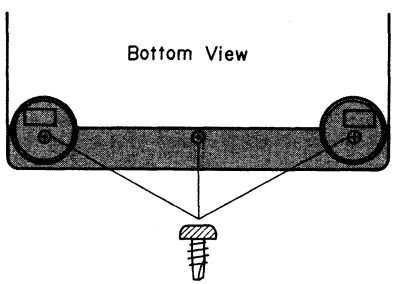
1. Removal of UPPER COVER



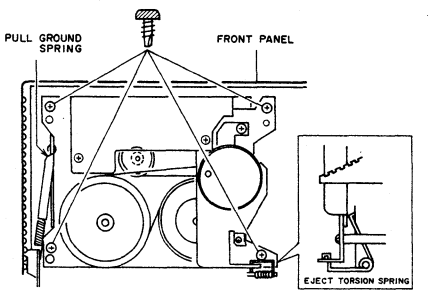
3.



2. Removal of the FRONT PANEL



4. Removal of the MECHA. BLOCK



1) Unhook the PULL GROUND and EJECT TORSION SPRINGS, then remove the four MECHA. BLK fixation screws.

II. PRINCIPAL PARTS LOCATION

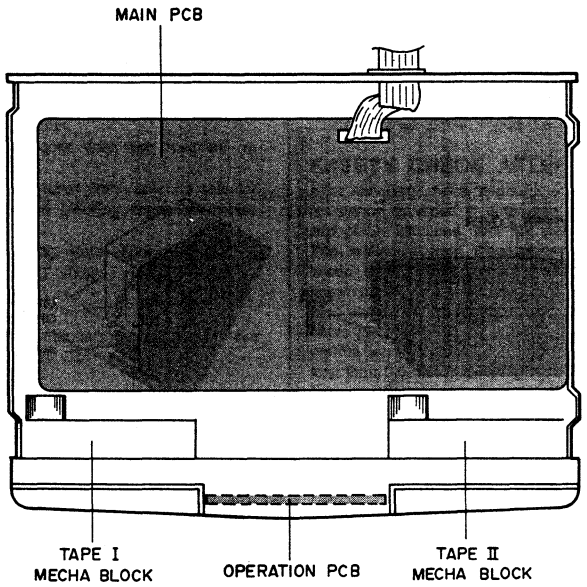


Fig. 2-1 Top view

III. MECHANICAL ADJUSTMENT

[PRECAUTION]
* Before adjustment, clean and de-magnetize the heads and tape guides.
* Do not use the magnetized tools for the following adjustments.

3-1. CONFIRMATION OF THE WINDING TORQUE IN EACH MODE

Insert a CASSETTE TORQUE METER (AT-751179) and measure the torque in each mode.
For fast forward and rewind, measure the torque at the end of the tape when tape has stopped running.

[PLAY BACK mode]
Take up torque : 35 to 75 g-cm
Back tension torque : 2 to 6 g-cm

[FAST FORWARD and REWIND mode]
Take up torque : 70 to 160 g-cm

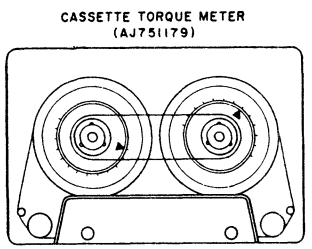


Fig. 3-1

3-2. ADJUSTMENT OF THE TAPE GUIDE HEIGHT

NOTE: This adjustment is not neccessary for the TAPE1 MECHA. BLOCK of the HX-M630W model.

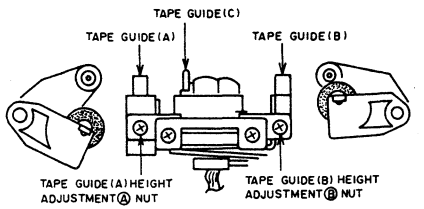


Fig. 3-2

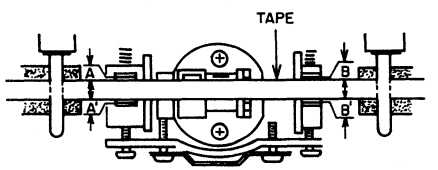


Fig. 3-3

1) Load the MIRROR CASSETTE TAPE (AJ-751178) and engage the FWD PLAY mode.
2) Adjust TAPE GUIDE (A) HEIGHT ADJUSTMENT Ⓐ screw so that both spaces (A and A') on the TAPE GUIDE (A) are equal.
3) Adjust TAPE GUIDE (B) HEIGHT ADJUSTMENT Ⓑ screw so that both spaces (B and B') on the TAPE GUIDE (B) are equal.
4) Repeat above 2) and 3) until tape runs smoothly and without any curls or wrinkle at the TAPE GUIDE (A), (B) and (C).
5) After adjustment, paint-lock the adjustment Ⓐ and Ⓑ screw.

3-3. ADJUSTMENT OF THE PB HEAD AZIMUTH ALIGNMENT (GAK-5PB MECHA. BLOCK)

NOTE: This adjustment is for the TAPE 1 MECHA. BLOCK of the HX-M630W model only.

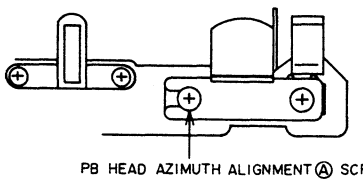


Fig. 3-4

1) Connect the AC milli-voltmeters to L-ch and R-ch of the VCR OUT on the amplifier and connect oscillscope's input CH-1 and CH-2 to output of the AC milli-voltmeters.
2) Play back a 10 kHz (-15 dB), HEAD AZIMUTH ALIGNMENT test tape (AT-750778) and adjust Ⓐ SCREW so that the reading on the AC milli-voltmeters are at maximum and waveforms on the oscilloscope are in the same phase.
3) After adjustment, paint-lock the adjustment Ⓐ SCREW.

3-4. ADJUSTMENT OF THE REC/PB HEAD AZIMUTH ALIGNMENT (GAK-3600D MECHA. BLOCK)

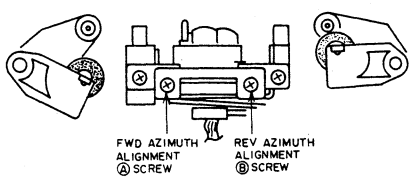


Fig. 3-5

1) Connect the AC milli-voltmeters to L-ch and R-ch of the VCR OUT on the amplifier and connect oscilloscope's input CH-1 and CH-2 to output of the AC milli-voltmeters.
2) Play back a 10 kHz (-15 dB), HEAD AZIMUTH ALIGNMENT test tape (AT-750778) and adjustment Ⓐ (FWD PLAY) or Ⓑ (REV PLAY) SCREW so that the reading on the AC milli-voltmeters are at maximum and waveforms on the oscilloscope are in the same phase.
3) After adjustment, paint-lock the adjustment Ⓐ and Ⓑ SCREWS.

IV. ELECTRICAL ADJUSTMENT

4-1. INSTRUMENT CONNECTIONS

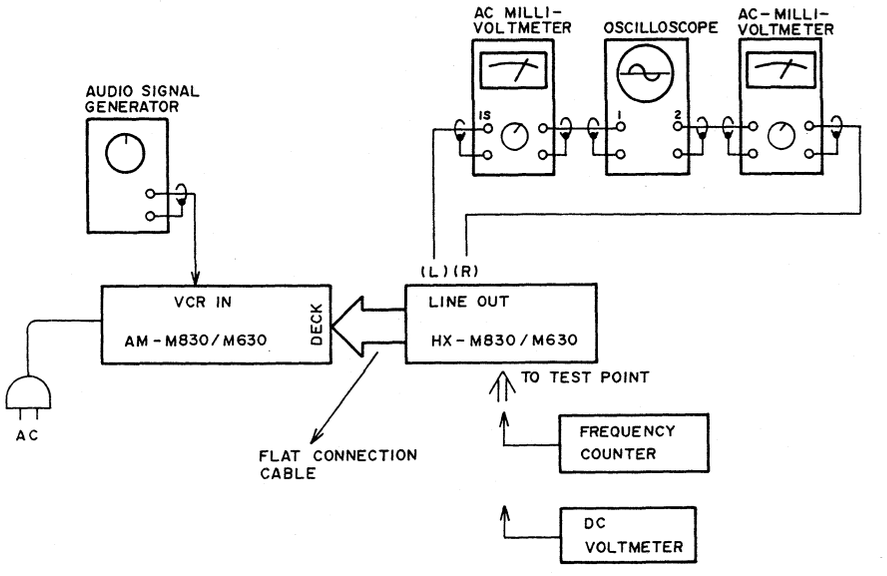


Fig. 4-1 Instruments connections

4-2. ADJUSTMENT FOR MODEL HX-M630W

[PRECAUTIONS BEFORE ADJUSTMENT]

1) Before adjustment, clean and de-magnetize heads and tape guides
2) All adjustments should be performed without dolby NR.
3) Use the following cassette tape for adjustment.
   NORMAL position : MAXELL UD I 60
   CrO_2 position : TDK SA 60
4) When adjusting bias, Input the input signal through the AMP's VCR IN terminal and set the amp's input selector to the VCR before recording.
5) 0 dBs = 0.775 V

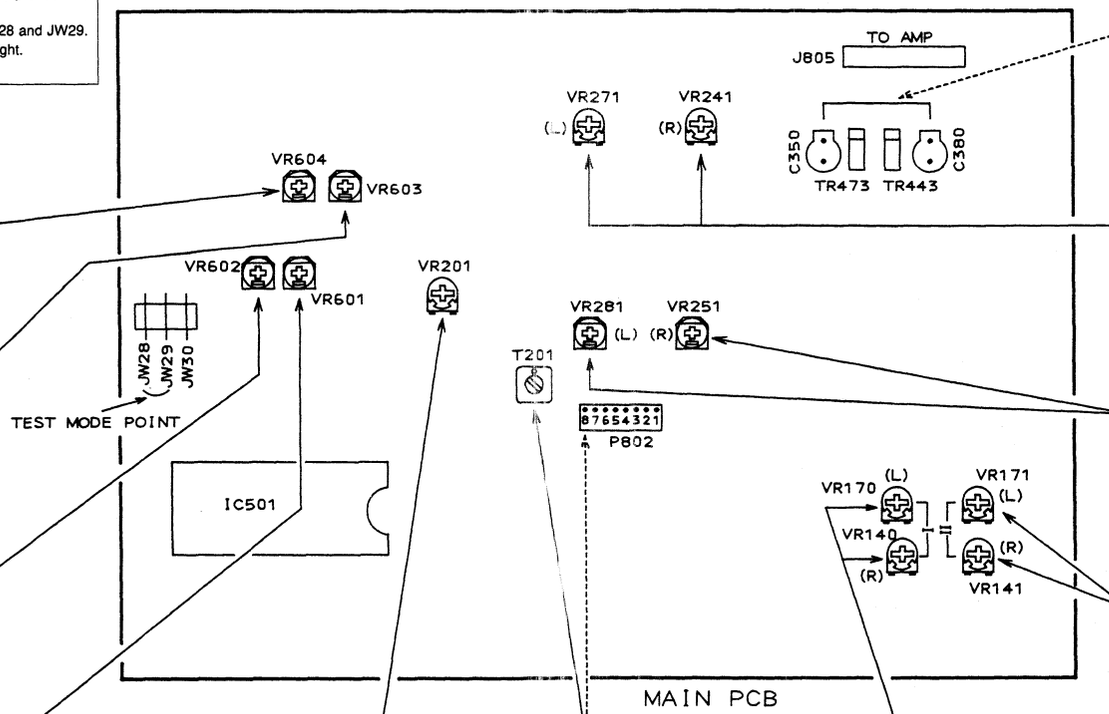
STEP	ADJUSTMENT ITEM
1.	TEST TAPE / INPUT SIGNAL
2.	MODE
3.	TEST POINT / ADJUSTMENT PART
4.	REMARKS (•) and RESULT (✻)

Test point Adjustment part

About the test mode

This unit has an adjustment test mode that must be engaged in order to perform some adjustments. To engage the adjustment mode, proceed as follows.

1. With the power ON, short the jumper wire of test points JW28 and JW29.
2. When the test points are shorted the CD EDIT lamp will light.
3. To cancel the test mode, turn the power off.



LINE OUT

* Connect the AC mili-voltmeters or other instrument between condencer and GND.
L ch : C380 ⊖ ↔ GND.
R ch : C350 ⊖ ↔ GND.

4	TAPE II NORMAL TAPE SPEED
1.	3,150 Hz test tape (AT-751263)
2.	PLAY
3.	LINE OUT / VR604
4.	• Connect a frequency counter to the LINE OUT.
	✻5 Hz to 10 Hz lower than the result in STEP 2 [TAPE I NORMAL TAPE SPEED].

3	TAPE II (X2) TAPE SPEED
1.	3,150 Hz test tape (AT-751263)
2.	PLAY [Push (X2) DUBBING START button]
3.	LINE OUT / VR603
4.	• Connect a frequency counter to the LINE OUT.
	✻5 Hz to 10 Hz lower than the result in STEP 1 [TAPE I (X2) TAPE SPEED].

2	TAPE I NORMAL (X1) TAPE SPEED
1.	3,150 Hz test tape (AT-751263)
2.	PLAY
3.	LINE OUT / VR602
4.	• Connect a frequency counter to the amplifier's LINE OUT.
	✻3,150 ± 10 Hz

1	TAPE I (X2) TAPE SPEED
1.	3,150 Hz test tape (AT-751263)
2.	PLAY [Push (X2) DUBBING START button]
3.	LINE OUT / VR601
4.	• Connect a frequency counter to the LINE OUT.
	✻6,300 ± 20 Hz

9	TAPE II CrO_2 POSITION BIAS
1.	CrO_2 recording tape. / 1 kHz and 10 kHz (VCR IN), −26 dBs (LINE OUT)
2.	REC PLAY → PLAY (Playback)
3.	LINE OUT/ VR201
4.	• Connect AC milli-voltmeter to the LINE OUT.
	✻Playback level difference between 1kHz and 10 kHz is falt.

7	TAPE II BIAS OSC FREQUENCY
1.	CrO_2 recording tape.
2.	REC PLAY
3.	P802 Pin ③ / T201
4.	• Connect frequency counter between P802 Pin ⑥ and GND
	✻100.0 kHz

5	TAPE I PB LEVEL
1.	315 Hz test tape (AT-750773)
2.	PLAY
3.	LINE OUT / VR170 (L-ch), VR140 (R-ch)
4.	• Connect AC milli-voltmeters to the LINE OUT.
	✻−6.0 dBs

10	TAPE II REC LEVEL
1.	NORMAL recording tape / 1 kHz (VCR IN), −6.0 dBs (LINE OUT)
2.	REC PLAY PLAY (Playback)
3.	LINE OUT / VR271 (L-ch), VR241 (R-ch)
4.	• Connect AC milli-voltmeter to the LINE OUT.
	✻−6.0 dBs

8	TAPE II NORMAL POSITION BIAS
1.	NORMAL recording tape. / 1 kHz and 10 kHz (VCR IN), −26 dBs (LINE OUT)
2.	REC PLAY → PLAY (Playback)
3.	LINE OUT / VR281 (L-ch), VR251 (R-ch)
4.	• Connect AC milli-voltmeter to the LINE OUT.
	✻Playback level difference between 1kHz and 10 kHz is flat.

6	TAPE II PB LEVEL
1.	315 Hz test tape (AT-750773)
2.	PLAY
3.	LINE OUT / VR171 (L-ch), VR141 (R-ch)
4.	• Connect AC milli-voltmeters to the LINE OUT.
	✻−6.0 dBs

4-3.ADJUSTMENT FOR MODEL HX-M830W

[PRECAUTIONS BEFORE ADJUSTMENT]

1) Before adjustment, clean and de-magnetize heads and tape guides.
2) All adjustments should be performed without dolby NR.
3) Use the following cassette tape for adjustment.
   NORMAL position : MAXELL UD I 60
   CrO_2 position : TDK SA 60
   METAL Position : TDK MA 60
4) When adjusting bias, Input the input signal through the AMP's VCR IN terminal and set the amp's input selector to the VCR before recording.
5) 0 dBs = 0.775 V

About the test mode
This unit has an adjustment test mode that must be engaged in order to perform some adjustments. To engage the adjustment mode, proceed as follows.
1. With the power ON, short the jumper wire of test points JW117 and JW118.
2. When the test points are shorted the CD EDIT lamp will light.
3. To cancel the test mode, turn the power off.

LINE OUT
* Connect the AC mili-voltmeters or other instruments between jumper wire and GND.
  L ch : JW202 ↔ GND.
  R ch : JW198 ↔ GND.

STEP | ADJUSTMENT ITEM
1. TEST TAPE / INPUT SIGNAL
2. MODE
3. TEST POINT / ADJUSTMENT PART
4. REMARKS (•) and (✻) RESULT

Test point
Adjustment part

9 | TAPE I NORMAL POSITION BIAS
1. NORMAL recording tape. / 1 kHz and 10 kHz (VCR IN), -26 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR901 (L-ch), VR902 (R-ch)
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻Playback level difference between 1kHz and 10kHz is flat.

7 | TAPE I BIAS OSC FREQUENCY
1. METAL recording tape.
2. REC PLAY
3. FR901 / T901, T902
4. • Connect a DC voltmeter to FR901
   ✻Minimum DC voltage

14 | TAPE II BIAS DIP POINT
1. METAL recording tape
2. REC PLAY
3. FR901 / T951, T952
4. • Connect a DC voltmeter to FR901
   ✻Minimum DC voltage

8 | TAPE I BIAS OSC FREQUENCY
1. METAL recording tape
2. REC PLAY
3. P101 Pin ⑧ / T501
4. • Connect frequency counter between P101 Pin ⑧ and GND.
   ✻100.0 kHz

13 | TAPE II BIAS OSC FREQUENCY
1. METAL recording tape.
2. REC PLAY
3. P102 Pin ⑧ / T551
4. • Connect frequency counter between P102 Pin ⑧ and GND.
   ✻100.0 ± 0.2 kHz

5 | TAPE I PB LEVEL
1. 315 Hz test tape (AT-750773)
2. PLAY
3. LINE OUT/ VR101 (L-ch), VR151 (R-ch)
4. • Connect AC milli-voltmeters to the LINE OUT.
   ✻-6.0 dBs

15 | TAPE II NORMAL POSITION BIAS
1. NORMAL recording tape. / 1 kHz and 10 kHz (VCR IN), -26 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR553 (L-ch), VR554 (R-ch)
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻Playback level difference between 1kHz and 10kHz is flat.

6 | TAPE II PB LEVEL
1. 315 Hz test tape (AT-750773)
2. PLAY
3. LINE OUT/ VR102 (R-ch), VR152 (R-ch)
4. • Connect AC milli-voltmeters to the LINE OUT.
   ✻-6.0 dBs

1 | TAPE I (X2) TAPE SPEED
1. 3,150 Hz test tape (AT-751263)
2. PLAY [Push (X2) DUBBING START button]
3. LINE OUT / VR701
4. • Connect a frequency counter to the LINE OUT.
   ✻6,300 ± 20 Hz

12 | TAPE I REC LEVEL
1. NORMAL recording tape. / 315 Hz (VCR IN), -6.0 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR301 (L-ch), VR351 (R-ch)
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻-6.0 dBs

2 | TAPE I NORMAL (X1) TAPE SPEED
1. 3,150 Hz test tape (AT-751263)
2. PLAY
3. LINE OUT /, VR702
4. • Connect a frequency counter to the LINE OUT.
   ✻3,150 ± 10 Hz

4 | TAPE II NORMAL TAPE SPEED
1. 3,150 Hz test tape (AT-751263)
2. PLAY
3. LINE OUT/ VR704
4. • Connect a frequency counter to the LINE OUT.
   ✻5 Hz to 10 Hz lower than the result in STEP 2 [TAPE I NORMAL TAPE SPEED].

18 | TAPE II REC LEVEL
1. NORMAL recording tape / 1 kHz ((VCR IN), -6.0 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR401 (L-ch), VR451 (R-ch)
4. • Connect AC milli- voltmeter to the LINE OUT.
   ✻-6.0 dBs

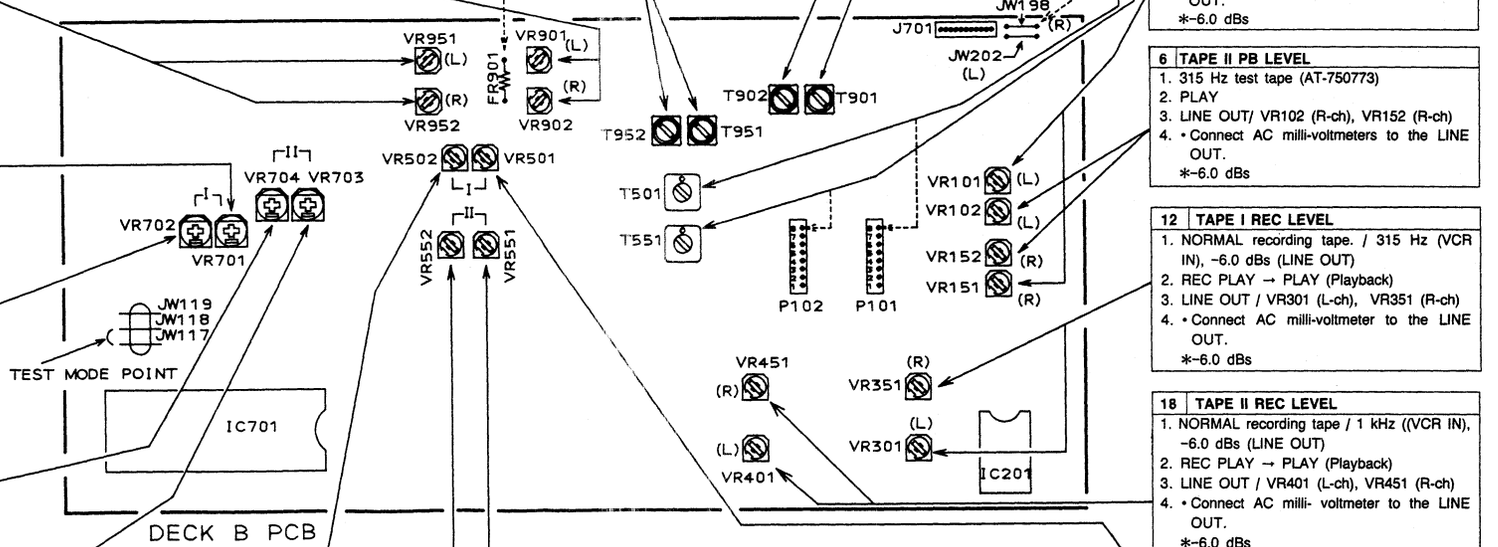
3 | TAPE II (X2) TAPE SPEED
1. 3,150 Hz test tape (AT-751263)
2. PLAY [Push (X2) DUBBING START button]
3. LINE OUT / VR703
4. • Connect a frequency counter to the LINE OUT.
   ✻5 Hz to 10 Hz lower than the result in STEP 1 [TAPE I (X2) TAPE SPEED].

11 | TAPE I METAL POSITION BIAS
1. METAL recording tape. / 1 kHz and 10 kHz (VCR IN), -26 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR502
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻Playback level difference between 1kHz and 10 kHz is flat.

17 | TAPE II METAL POSITION BIAS
1. METAL recording tape. / 1kHz and 10 kHz (VCR IN), -26 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR552
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻Playback level difference between 1kHz and 10 kHz is falt.

16 | TAPE II CrO_2 POSITION BIAS
1. CrO_2 recording tape. / 1 kHz and 10 kHz (VCR IN), -26 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR551
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻Playback level difference between 1kHz and 10 kHz is falt.

10 | TAPE I CrO_2 POSITION BIAS
1. CrO_2 recording tape. / 1 kHz and 10kHz (VCR IN), -26 dBs (LINE OUT)
2. REC PLAY → PLAY (Playback)
3. LINE OUT / VR501
4. • Connect AC milli-voltmeter to the LINE OUT.
   ✻Playback level difference between 1kHz and 10kHz is flat.



V. PARTS

1. When plac
   Otherwise,
2. Please ma
   If not, a pa
3. Since the
   please use

1. This Parts Li
   tors and capa
   and stocked.
2. The Recomm
   ant for service
3. Parts not sho
4. How to read t

a) Mechanism

2. HEAD BAS

Ref. No.	Part No.
1	BH-T2023A
2	HP-H2206A
3	ZS-477876
4	ZS-536488
5	ZG-402895

The available
5. When Part No
   by its Referen

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CRITICAL CO

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SÉCURITÉD
FABRICANT.

V. PARTS LIST

ATTENTION

1. **When placing an order for parts, be sure to list Part No., Model No. and the description of eachpart. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.**
2. **Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.**
3. **Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.**

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

Ref. No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

6. MAIN PC BOARD

Ref. No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A) [S] : SAA (Australia)
[B] : BEAB (England) [U] : U/T (Universa Area)
[C] : CSA (Canada)
[E] : CEE (Europe) [V] : VDE (W. Germany)
[J] : JPN (Japan) [Y] : Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No.listed at right of Part No.

WARNING

⚠ (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1.RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

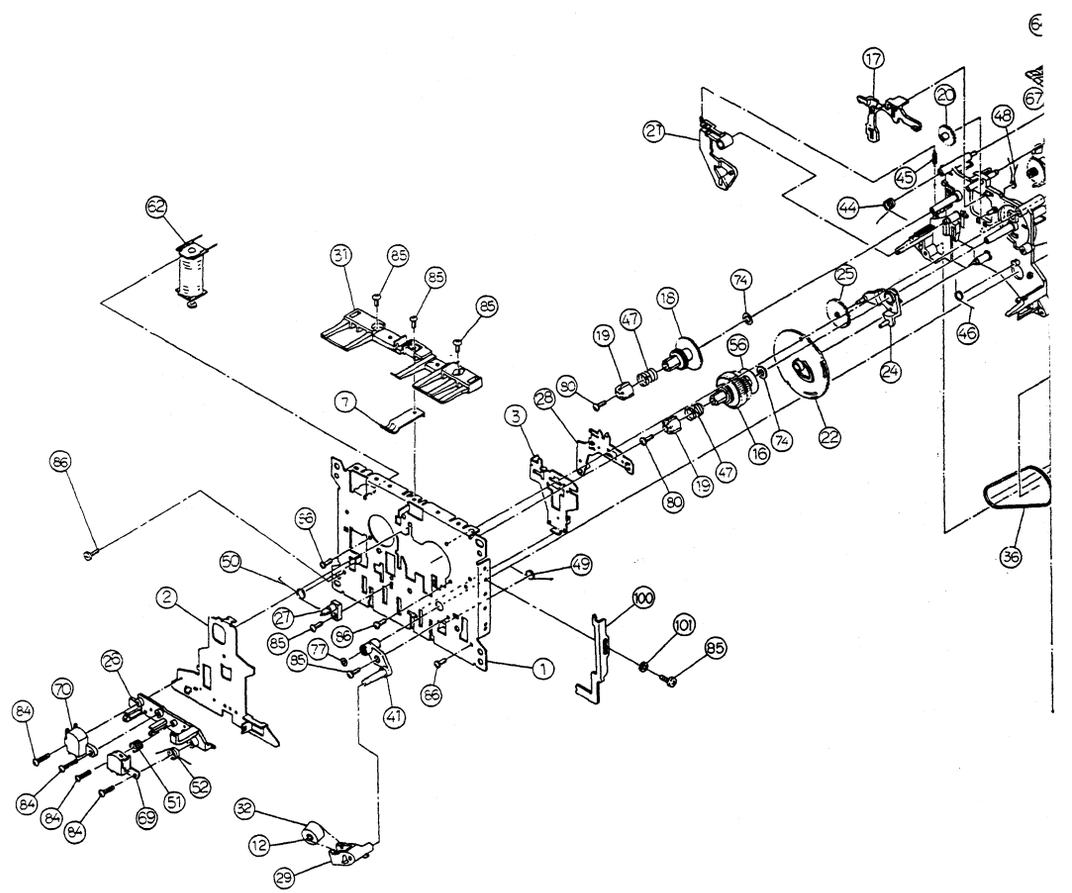
Ref.No.	Part No.	Description
1	BB-401096M	MECHA GAK-5PB-2 [TAPE-1,HX-M630W]
2	BB-403466M	MECHA GAK3603D [TAPE-2,HX-M630W]
3	BB-405194J	MECHA GAS-3601D [TAPE-2,HX-M830M]
4	BB-400945J	MECHA GAS3602D [TAPE-1,HX-M830W]
5	BM-729992J	MOTOR EG-530KD-2B
6	BM-729993J	MOTOR EG-530YD-2B
7	ED-394723J	D LED GL3HY44 YELLOW
8	ED-382365J	D LED SLR-34VC3F RED [HX-M830W]
9	ED-307572	D SILICON H 1SS131
10	ED-370990	D SILICON 1SR35-100AHS F10
11	ED-381585J	D ZENER H HZS11B1J F05
12	ED-391005J	D ZENER H HZS12B1
13	ED-391103J	D ZENER H HZS12B2
14	ED-396065J	D ZENER H HZS12C1
15	ED-391003J	D ZENER H HZS4C3
16	ED-387919J	D ZENER H HZS6A1L F05
17	ED-372680	D ZENER H HZS6B3L F05
18	ED-400171J	D ZENER H HZS6C2L F05
19	ED-388368J	D ZENER H HZS9B3L F05
20	ED-346525	D ZENER H HZ6A3L
21	EI-373980	IC BA15218N
22	EI-394572J	IC CXA1115BP
23	EI-394573J	IC CXA1331S
24	EI-394574J	IC LA2000
25	EI-337008	IC LC7800
26	EI-394569J	IC M66312P
27	EI-373383	IC UPC1297CA
28	EI-401092J	IC UPD75106CW FXA2DK1-185
29	EI-401057J	IC UPD75112CW FXB2DK1-120
30	EI-719635	OSC CE KBR-4.19M 4.19MHZ
31	ER-345751	R FUSE H S10 ERD2FC 1/4W 15R0G
32	ER-200926	R FUSE H S10 ERD2FC 1/4W 27R0G
33	ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
34	ES-732430M	SW LEAF LSA-1114F
35	ES-732429M	SW LEAF LSA-1146-2AU
36	ES-390621J	SW SLIDE SSSF 01-03N [DOLBY]
37	ES-394818J	SW TACT SOR-123HS T05 [STOP]
38	ET-732427M	DETECTOR NJL5165K
39	ET-369248	TR DTA114YS
40	ET-373382	TR DTA143ZS
41	ET-360399	TR DTC114TS
42	ET-354365	TR DTC114YS
43	ET-373485	TR DTC123JS
44	ET-373392	TR DTC124XS
45	ET-354364	TR DTC143TS
46	ET-373391	TR DTC143ZS
47	ET-354414	TR DTC144ES
48	ET-394570J	TR 2SA1038 S T05
49	ET-749377	TR 2SA1048 GR
50	ET-394642J	TR 2SC1840 F,E T05
51	ET-394571J	TR 2SC2389 S,E T05
52	ET-749375	TR 2SC2458 GR
53	ET-394643J	TR 2SC3113 A,B T05
54	ET-400741J	TR 2SC3708 T T05
55	ET-366581	TR 2SD1762 E,F
56	ET-396072J	TR 2SD2159 V,W
57	EW-390605J	WIRE ASSY T2127 (B) 15P
58	HR-732436J	HEAD RP BLK HX-M800W
59	HR-732431M	HEAD RP MS15R-AA2N4
60	MB-732415M	CLUTCH BELT (C)
61	MB-732454J	CLUTCH BELT (F)
62	MB-732416M	DRIVE BELT
63	MB-732574J	DRIVE BELT
64	MP-732411M	PINCH ROLLER
65	MP-732450J	PINCH ROLLER (L) ASSY
66	MP-732449J	PINCH ROLLER (R) ASSY

2. MECHA BLOCK

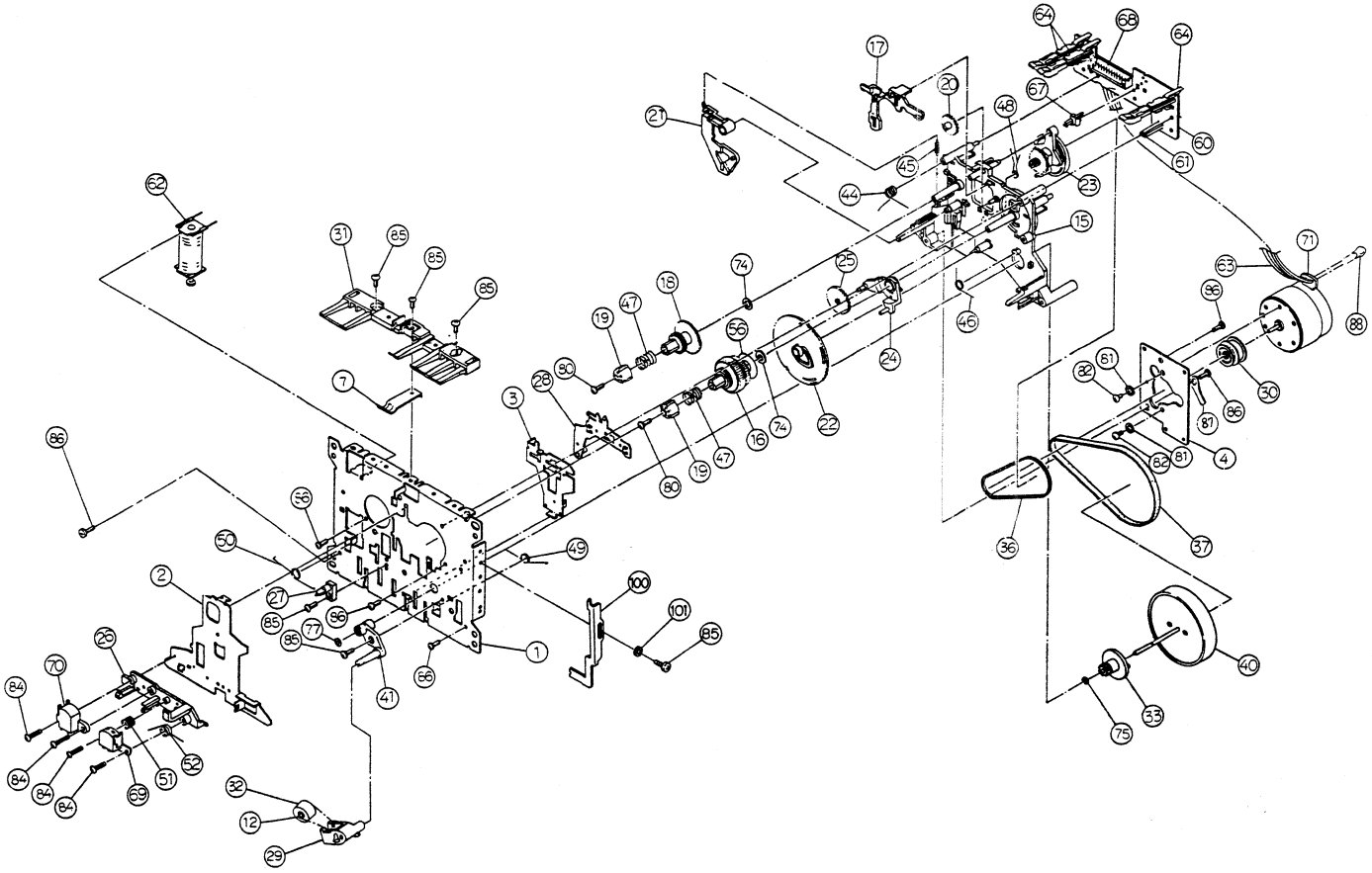
Ref.No.	Part No.	Description
7	ZG-732571M	PACK SPRING (M)
12	MS-732393M	P ROLLER SHAFT
16	MT-732394J	REEL ASSY (T)
17	ML-732395M	BRAKE ARM
18	MT-732396M	REEL (S)
19	MT-732397J	REEL CAP (B)
20	MZ-732398M	FF GEAR
22	MZ-732401J	PLAY CAM GEAR
23	MZ-732402J	CLUTCH ASSY
25	MZ-732404M	PLAY GEAR
26	HZ-732405J	HEAD BASE
30	MR-732409J	MOTOR PULLEY (C)
32	MP-732411J	PINCH ROLLER
33	MZ-732412M	FLYWHEEL GEAR
36	MB-732415M	CLUTCH BELT (C)
37	MB-732416M	DRIVE BELT
40	MI-732417M	FLYWHEEL
41	MV-732418J	HOUSING ASSY
44	ZG-735419J	BRAKE ARM SPRING
46	ZG-735420J	PLAY ARM SPRING
47	ZG-732421M	REEL SPRING
48	ZG-735422J	CLUTCH ARM SPRING
51	ZG-726027J	SP HEAD (RP)
52	ZG-732425M	P ROLLER SPRING
56	MZ-732426M	REFLECT SEAL
61	ET-732427M	DETECTOR NJL5165K
62	EP-732428M	SOLENOID ASSY
64	ES-732429M	SW LEAF LSA-1146-2AU
67	ES-732430M	SW LEAF LSA-1114F
69	HR-732431M	HEAD RP MS15R-AA2N4
70	HZ-732414M	DUMMY E HEAD LE100-C1
71	BM-729992J	MOTOR EG-530KD-2B
75	ZW-726629J	PSW21X040X025
77	ZW-725589J	PSW16X060X050
80	ZS-732434M	SCREW 1.7X6SPL
85	ZS-725379J	T2BID20X04

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

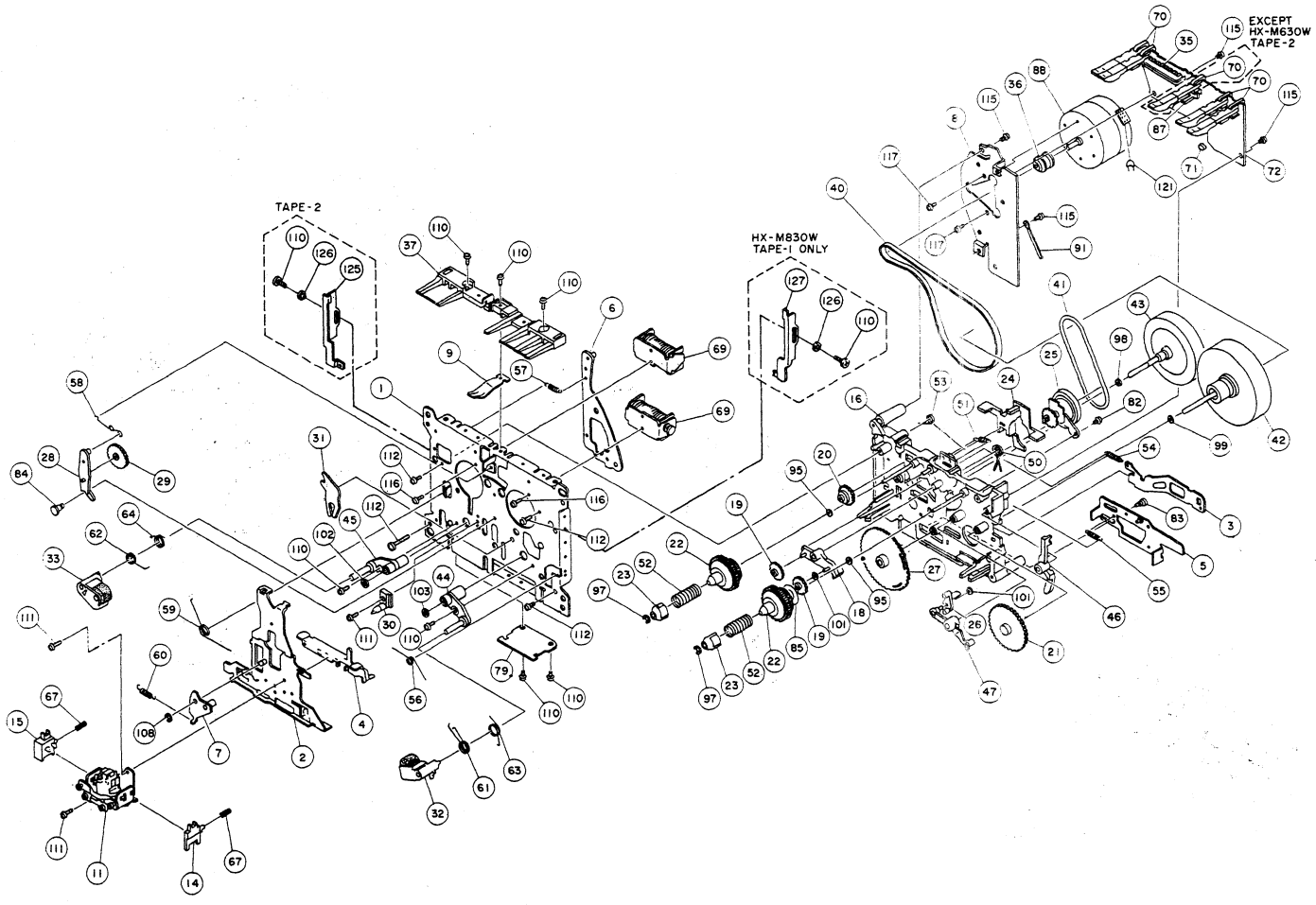
MECHA BLOCK



MECHA BLOCK



MECHA BLOCK (REVERSE)



3. MECHA BLOCK (REVERSE)

Ref.No.	Part No.	Description
9	ZG-732571M	PACK SPRING (M)
11	HR-732436J	HEAD RP BLK HX-M800W
14	MS-732437J	TAPE GUIDE (R)
15	MS-732438J	TAPE GUIDE (L)
19	MZ-732439J	FR GEAR
20	MZ-732440J	REW GEAR
21	MZ-732441J	FR CAM GEAR
22	MT-732442J	REEL ASSY (G)
23	MT-732573J	REEL CAP (C)
24	ML-732444J	BRAKE ARM (B)
25	MZ-732445J	CLUTCH (B) ASSY
27	MZ-732446J	PL CAM GEAR (B)
29	MZ-732447J	PLAY GEAR
30	MS-732448J	CASSETTE GUIDE
32	MP-732449J	PINCH ROLLER (R) ASSY
33	MP-732450J	PINCH ROLLER (L) ASSY
36	MR-732452J	MOTOR PULLEY (F)
40	MB-732574J	DRIVE BELT
41	MB-732454J	CLUTCH BELT (F)
42	MI-732575J	FLYWHEEL (A) ASSY
43	MI-732576J	FLYWHEEL (B) ASSY
44	MV-732457J	HOUSING (R)
45	MV-732458J	HOUSING (L)
50	ZG-732459J	SP FR ARM (G)
51	ZG-732460J	SP FR ARM (B)
52	ZG-732461J	SP REEL (F)
53	ZG-732462J	SP BRAKE
56	ZG-732463J	SP FR SHIFT
58	ZG-732464J	SP PLAY ARM
59	ZG-732465J	SP HEAD CHASSIS (B)
61	ZG-732466J	SP P-ROLLER (RA)
62	ZG-732467J	SP P-ROLLER (LA)
63	ZG-732468J	SP P-ROLLER ARM (RB)
64	ZG-732469J	SP P-ROLLER ARM (LB)
69	EP-732470J	SOLENOID ASSY (B)
70	ES-732429M	SW LEAF LSA-1146-2AU
71	ET-732427M	DETECTOR NJL5165K
85	MZ-732471J	REFRECT SEAL
88	BM-729993J	MOTOR EG-530YD-2B
95	ZW-726629J	PSW21X040X025
97	ZW-715984	PW16X035X050PSL
101	ZW-716206	PW17X035X025PSL
102	ZW-749818	WASHER 1.8X5.0X0.5NYL
103	ZW-749819	WASHER 2.1X7.0X0.5NYL
110	ZS-725379J	T2BID20X04
111	ZS-726632J	SCREW 20X05

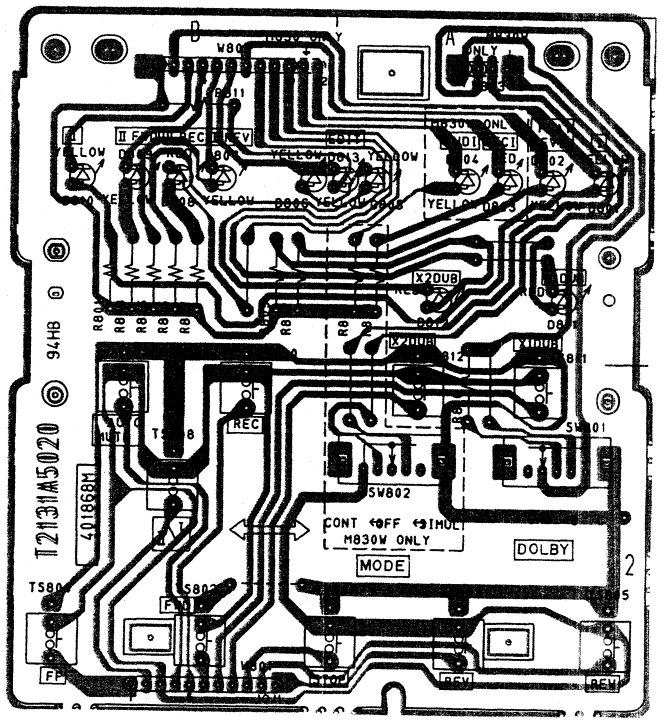
NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

4. P.C BOARD

Ref.No.	Part No.	Description
1A	BA-T2131A020A	PC DECK-A BLK HX-M630W
1B	BA-T2132A020A	PC DECK-B BLK HX-M830W
2A	BA-T2131A030A	PC OPERATION BLK HX-M630W
2B	BA-T2131A030B	PC OPERATION BLK HX-M830W

5. DECK-A F

Ref.No.	Par
D201	ED-
D202	ED-
D301	ED-
D401	ED-
D441	ED-
D442	ED-
D471	ED-
D472	ED-
D501	ED-
D502	ED-
D503	ED-
D601	ED-
D602	ED-
D603	ED-
D701	ED-
D702	ED-
D703	ED-
D704	ED-
D705	ED-
D706	ED-
D707	ED-
D708	ED-
D709	ED-
D710	ED-
D711	ED-
D712	ED-
FL141	EO-
FL171	EO-
FL241	EO-
FL271	EO-
FR301	ER-
IB501	EH-
IB502	EH-
IB503	EH-
IC101	EI-3
IC102	EI-3
IC201	EI-3
IC301	EI-3
IC501	EI-4
L201	EO-
L241	EO-
L242	EO-
L271	EO-
L272	EO-
T201	EO-
TR101	ET-
TR102	ET-
TR103	ET-
TR104	ET-
TR105	ET-
TR106	ET-
TR107	ET-
TR108	ET-
TR141	ET-
TR142	ET-
TR143	ET-
TR144	ET-
TR145	ET-
TR146	ET-
TR147	ET-
TR171	ET-
TR172	ET-
TR173	ET-
TR174	ET-
TR175	ET-
TR176	ET-
TR177	ET-
TR201	ET-
TR202	ET-
TR203	ET-
TR204	ET-
TR205	ET-
TR206	ET-
TR207	ET-
TR208	ET-
TR209	ET-
TR210	ET-
TR211	ET-
TR241	ET-

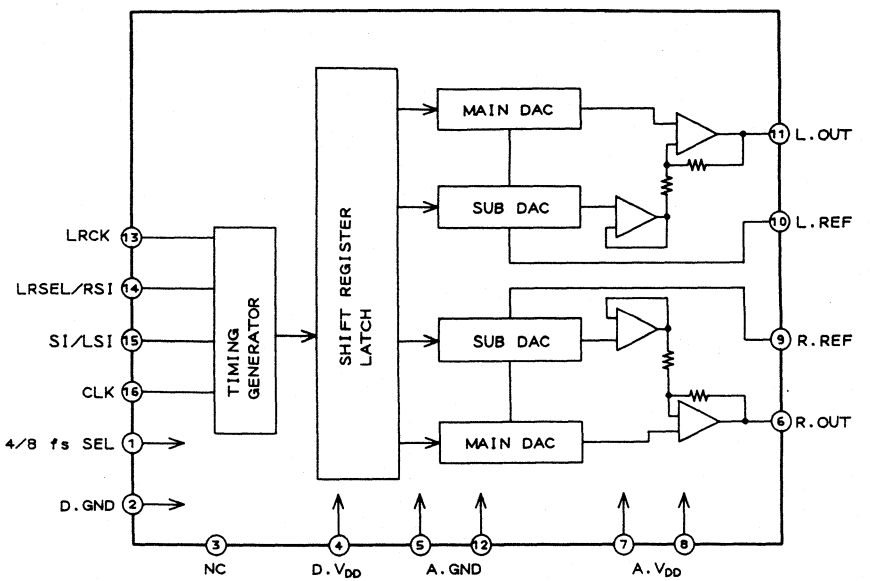


OPERATION PCB T2123A5020

PD0052 (Digital Audio Interface Receiver)

PIN NO.	SYMBOL	I/O	DESCRIPTION
1	IN 1	I	Digital Audio Interface signal input.
2	IN 2	I	
3	IN 3	I	
4	S 1	I	Input select 1.
5	S 2	I	Input select 2.
6	OUT	O	Data output.
7	$\overline{TEST}$	I	TEST MODE input.
8	$\overline{RESET}$	I	Power "ON" Reset input.
9	VCOINH	I	VCO OSC Stop Control signal input.
10	VSS	-	GND
11	PCVS	I	External Resistor Connection Terminal for VCO.
12	PC OUT	O	Phase comperator output.
13	R	-	External Resistor Connection Terminal for VCO.
14	VCO IN	I	Control voltage input.
15	VDD 1	-	+B (+5 V)
16	VCO OUT	O	VCO Output (384 fs)
17	VSS 1	-	GND
18	CA	-	External Capacitor Connection Terminal for VCO.
19	CB	-	
20	MODE	-	GND
21	BCK	O	Bit clock output.
22	DATA	O	Data output.
23	LRCK	O	Data output. (H=L ch, L=R ch)
24	COPY	O	Copy inhibit information output.
25	EMPH	O	H: EMPHASIS
26	ERR	O	H: Parity Error, L= NO ERROR
27	48 K	O	Sampling Frequency data output. L=active
28	44.1 K	O	
29	32 K	O	
30	VDD	-	+B (+5 V)

µPD6376CX (16 Bit D/A Convertor)



3. MECHA BLOCK (REVERSE)

Ref.No.	Part No.	Description
9	ZG-732571M	PACK SPRING (M)
11	HR-732436J	HEAD RP BLK HX-M800W
14	MS-732437J	TAPE GUIDE (R)
15	MS-732438J	TAPE GUIDE (L)
19	MZ-732439J	FR GEAR
20	MZ-732440J	REW GEAR
21	MZ-732441J	FR CAM GEAR
22	MT-732442J	REEL ASSY (G)
23	MT-732573J	REEL CAP (C)
24	ML-732444J	BRAKE ARM (B)
25	MZ-732445J	CLUTCH (B) ASSY
27	MZ-732446J	PL CAM GEAR (B)
29	MZ-732447J	PLAY GEAR
30	MS-732448J	CASSETTE GUIDE
32	MP-732449J	PINCH ROLLER (R) ASSY
33	MP-732450J	PINCH ROLLER (L) ASSY
36	MR-732452J	MOTOR PULLEY (F)
40	MB-732574J	DRIVE BELT
41	MB-732454J	CLUTCH BELT (F)
42	MI-732575J	FLYWHEEL (A) ASSY
43	MI-732576J	FLYWHEEL (B) ASSY
44	MV-732457J	HOUSING (R)
45	MV-732458J	HOUSING (L)
50	ZG-732459J	SP FR ARM (G)
51	ZG-732460J	SP FR ARM (B)
52	ZG-732461J	SP REEL (F)
53	ZG-732462J	SP BRAKE
56	ZG-732463J	SP FR SHIFT
58	ZG-732464J	SP PLAY ARM
59	ZG-732465J	SP HEAD CHASSIS (B)
61	ZG-732466J	SP P-ROLLER (RA)
62	ZG-732467J	SP P-ROLLER (LA)
63	ZG-732468J	SP P-ROLLER ARM (RB)
64	ZG-732469J	SP P-ROLLER ARM (LB)
69	EP-732470J	SOLENOID ASSY (B)
70	ES-732429M	SW LEAF LSA-1146-2AU
71	ET-732427M	DETECTOR NJL5165K
85	MZ-732471J	REFRECT SEAL
88	BM-729993J	MOTOR EG-530YD-2B
95	ZW-726629J	PSW21X040X025
97	ZW-715984	PW16X035X050PSL
101	ZW-716206	PW17X035X025PSL
102	ZW-749818	WASHER 1.8X5.0X0.5NYL
103	ZW-749819	WASHER 2.1X7.0X0.5NYL
110	ZS-725379J	T2BID20X04
111	ZS-726632J	SCREW 20X05

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

4. P.C BOARD

Ref.No.	Part No.	Description
1A	BA-T2131A020A	PC DECK-A BLK HX-M630W
1B	BA-T2132A020A	PC DECK-B BLK HX-M830W
2A	BA-T2131A030A	PC OPERATION BLK HX-M630W
2B	BA-T2131A030B	PC OPERATION BLK HX-M830W

5. DECK-A P.C BOARD (HX-M630W)

Ref.No.	Part No.	Description
D201	ED-391003J	D ZENER H HZS4C3
D202	ED-388368J	D ZENER H HZS9B3L F05
D301	ED-381585J	D ZENER H HZS11B1J F05
D401	ED-307572	D SILICON H 1SS131
D441	ED-307572	D SILICON H 1SS131
D442	ED-307572	D SILICON H 1SS131
D471	ED-307572	D SILICON H 1SS131
D472	ED-307572	D SILICON H 1SS131
D501	ED-307572	D SILICON H 1SS131
D502	ED-307572	D SILICON H 1SS131
D503	ED-307572	D SILICON H 1SS131
D601	ED-307572	D SILICON H 1SS131
D602	ED-307572	D SILICON H 1SS131
D603	ED-307572	D SILICON H 1SS131
D701	ED-370990	D SILICON 1SR35-100AHS F10
D702	ED-370990	D SILICON 1SR35-100AHS F10
D703	ED-370990	D SILICON 1SR35-100AHS F10
D704	ED-370990	D SILICON 1SR35-100AHS F10
D705	ED-370990	D SILICON 1SR35-100AHS F10
D706	ED-370990	D SILICON 1SR35-100AHS F10
D707	ED-370990	D SILICON 1SR35-100AHS F10
D708	ED-370990	D SILICON 1SR35-100AHS F10
D709	ED-391103J	D ZENER H HZS12B2
D710	ED-372680	D ZENER H HZS6B3L F05
D711	ED-387919J	D ZENER H HZS6A1L F05
D712	ED-391103J	D ZENER H HZS12B2
FL141	EO-395018J	COIL TUN 1 0014-908-0-00
FL171	EO-395018J	COIL TUN 1 0014-908-0-00
FL241	EO-395018J	COIL TUN 1 0014-908-0-00
FL271	EO-395018J	COIL TUN 1 0014-908-0-00
FR301	ER-200926	R FUSE H S10 ERD2FC 1/4W 27R0G
IB501	EH-397651J	COMP R RGLE11A1227
IB502	EH-397652J	COMP R RGLE12A1228
IB503	EH-394563J	COMP R RGLE3X 332J
IC101	EI-394572J	IC CXA1115BP
IC102	EI-394574J	IC LA2000
IC201	EI-373980	IC BA15218N
IC301	EI-394573J	IC CXA1331S
IC501	EI-401092J	IC UPD75106CW FXA2DK1-185
L201	EO-389412J	COIL FIX 1 LAV35VB T05 101K
L241	EO-394589J	COIL FIX 1 RCP095 822J
L242	EO-393645J	COIL FIX 1 RCP095 392J
L271	EO-394589J	COIL FIX 1 RCP095 822J
L272	EO-393645J	COIL FIX 1 RCP095 392J
T201	EO-395017J	COIL OSC 1 0015-905-0-00
TR101	ET-394570J	TR 2SA1038 S T05
TR102	ET-354414	TR DTC144ES
TR103	ET-373391	TR DTC143ZS
TR104	ET-354414	TR DTC144ES
TR105	ET-354365	TR DTC114YS
TR106	ET-354365	TR DTC114YS
TR107	ET-354365	TR DTC114YS
TR108	ET-354414	TR DTC144ES
TR141	ET-749375	TR 2SC2458 GR
TR142	ET-354364	TR DTC143TS
TR143	ET-749375	TR 2SC2458 GR
TR144	ET-354364	TR DTC143TS
TR145	ET-394571J	TR 2SC2389 S,E T05
TR146	ET-394571J	TR 2SC2389 S,E T05
TR147	ET-354364	TR DTC143TS
TR171	ET-749375	TR 2SC2458 GR
TR172	ET-354364	TR DTC143TS
TR173	ET-749375	TR 2SC2458 GR
TR174	ET-354364	TR DTC143TS
TR175	ET-394571J	TR 2SC2389 S,E T05
TR176	ET-394571J	TR 2SC2389 S,E T05
TR177	ET-354364	TR DTC143TS
TR201	ET-373391	TR DTC143ZS
TR202	ET-400741J	TR 2SC3708 T T05
TR203	ET-400741J	TR 2SC3708 T T05
TR204	ET-366581	TR 2SD1762 E,F
TR205	ET-749375	TR 2SC2458 GR
TR206	ET-749375	TR 2SC2458 GR
TR207	ET-749375	TR 2SC2458 GR
TR208	ET-354414	TR DTC144ES
TR209	ET-354414	TR DTC144ES
TR210	ET-373391	TR DTC143ZS
TR211	ET-354364	TR DTC143TS
TR241	ET-749375	TR 2SC2458 GR

Ref.No.	Part No.	Description
TR242	ET-354364	TR DTC143TS
TR243	ET-354364	TR DTC143TS
TR244	ET-354364	TR DTC143TS
TR271	ET-749375	TR 2SC2458 GR
TR272	ET-354364	TR DTC143TS
TR273	ET-354364	TR DTC143TS
TR274	ET-354364	TR DTC143TS
TR301	ET-354365	TR DTC114YS
TR441	ET-749375	TR 2SC2458 GR
TR442	ET-749375	TR 2SC2458 GR
TR443	ET-749375	TR 2SC2458 GR
TR444	ET-749375	TR 2SC2458 GR
TR445	ET-749375	TR 2SC2458 GR
TR471	ET-749375	TR 2SC2458 GR
TR472	ET-749375	TR 2SC2458 GR
TR473	ET-749375	TR 2SC2458 GR
TR474	ET-749375	TR 2SC2458 GR
TR475	ET-749375	TR 2SC2458 GR
TR501	ET-373392	TR DTC124XS
TR502	ET-373392	TR DTC124XS
TR503	ET-373382	TR DTA143ZS
TR504	ET-369248	TR DTA114YS
TR505	ET-354414	TR DTC144ES
TR506	ET-373485	TR DTC123JS
TR507	ET-373485	TR DTC123JS
TR508	ET-373485	TR DTC123JS
TR509	ET-373485	TR DTC123JS
TR510	ET-749375	TR 2SC2458 GR
TR511	ET-373485	TR DTC123JS
TR512	ET-373485	TR DTC123JS
TR513	ET-373485	TR DTC123JS
TR514	ET-373485	TR DTC123JS
TR601	ET-396072J	TR 2SD2159 V,W
TR602	ET-396072J	TR 2SD2159 V,W
TR603	ET-396072J	TR 2SD2159 V,W
TR604	ET-396072J	TR 2SD2159 V,W
TR605	ET-373382	TR DTA143ZS
TR606	ET-749377	TR 2SA1048 GR
TR607	ET-749377	TR 2SA1048 GR
TR608	ET-749375	TR 2SC2458 GR
TR609	ET-749375	TR 2SC2458 GR
TR701	ET-366581	TR 2SD1762 E,F
TR702	ET-749375	TR 2SC2458 GR
TR703	ET-366581	TR 2SD1762 E,F
TR704	ET-749375	TR 2SC2458 GR
TR705	ET-366581	TR 2SD1762 E,F
TR706	ET-749375	TR 2SC2458 GR
TR707	ET-749375	TR 2SC2458 GR
VR140	EV-356577	R S-FIX H RH0615C 0.10W 103
VR141	EV-362115	R S-FIX H RH0615C 0.10W 153
VR170	EV-356577	R S-FIX H RH0615C 0.10W 103
VR171	EV-362115	R S-FIX H RH0615C 0.10W 153
VR201	EV-356583	R S-FIX H RH0615C 0.10W 332
VR241	EV-356576	R S-FIX H RH0615C 0.10W 472
VR251	EV-341236	R S-FIX H TM8KV2-1S 0.50W303
VR271	EV-356576	R S-FIX H RH0615C 0.10W 472
VR281	EV-341236	R S-FIX H TM8KV2-1S 0.50W303
VR601	EV-394561J	R S-FIX H V8K4-11(1S) 0.10W102
VR602	EV-367524	R S-FIX H V8K4-11(1S) 0.10W501
VR603	EV-355380	R S-FIX H V8K4-11(1S) 0.10W202
VR604	EV-394561J	R S-FIX H V8K4-11(1S) 0.10W102
X501	EI-719635	OSC CE KBR-4.19M 4.19MHZ

6. DECK-B P.C BOARD (HX-M830W)

Ref.No.	Part No.	Description
D201	ED-381585J	D ZENER H HZS11B1J F05
D301	ED-388368J	D ZENER H HZS9B3L F05
D401	ED-388368J	D ZENER H HZS9B3L F05
D501	ED-391003J	D ZENER H HZS4C3
D551	ED-391003J	D ZENER H HZS4C3
D601	ED-307572	D SILICON H 1SS131
D602	ED-307572	D SILICON H 1SS131
D603	ED-307572	D SILICON H 1SS131
D604	ED-307572	D SILICON H 1SS131
D651	ED-307572	D SILICON H 1SS131
D701	ED-370990	D SILICON 1SR35-100AHS F10
D702	ED-370990	D SILICON 1SR35-100AHS F10
D703	ED-370990	D SILICON 1SR35-100AHS F10
D704	ED-370990	D SILICON 1SR35-100AHS F10
D705	ED-391005J	D ZENER H HZS12B1
D706	ED-396065J	D ZENER H HZS12C1
D707	ED-400171J	D ZENER H HZS6C2L F05
D708	ED-346525	D ZENER H HZ6A3L
D709	ED-370990	D SILICON 1SR35-100AHS F10
D710	ED-370990	D SILICON 1SR35-100AHS F10
D711	ED-370990	D SILICON 1SR35-100AHS F10
D712	ED-370990	D SILICON 1SR35-100AHS F10
D713	ED-307572	D SILICON H 1SS131
D714	ED-307572	D SILICON H 1SS131
D715	ED-307572	D SILICON H 1SS131
D716	ED-307572	D SILICON H 1SS131
D717	ED-307572	D SILICON H 1SS131
D718	ED-307572	D SILICON H 1SS131
D719	ED-307572	D SILICON H 1SS131
D721	ED-370990	D SILICON 1SR35-100AHS F10
D722	ED-370990	D SILICON 1SR35-100AHS F10
FL101	EO-395018J	COIL TUN 1 0014-908-0-00
FL151	EO-395018J	COIL TUN 1 0014-908-0-00
FL301	EO-395018J	COIL TUN 1 0014-908-0-00
FL351	EO-395018J	COIL TUN 1 0014-908-0-00
FL401	EO-395018J	COIL TUN 1 0014-908-0-00
FL451	EO-395018J	COIL TUN 1 0014-908-0-00
FR281	ER-200926	R FUSE H S10 ERD2FC 1/4W 27R0G
FR701	ER-345751	R FUSE H S10 ERD2FC 1/4W 15R0G
FR901	ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
IB701	EH-383120J	COMP R RGLE11X 473J
IB702	EH-383120J	COMP R RGLE11X 473J
IB703	EH-394596J	COMP R RGLE4X 332J
IB704	EH-397650J	COMP R RGLE12X 472J
IC101	EI-394572J	IC CXA1115BP
IC201	EI-394573J	IC CXA1331S
IC301	EI-373980	IC BA15218N
IC401	EI-373980	IC BA15218N
IC681	EI-394574J	IC LA2000
IC701	EI-401057J	IC UPD75112CW FXB2DK1-120
IC702	EI-337008	IC LC7800
IC703	EI-394569J	IC M66312P
IC901	EI-373383	IC UPC1297CA
IC951	EI-373383	IC UPC1297CA
L301	EO-394589J	COIL FIX 1 RCP095 822J
L351	EO-394589J	COIL FIX 1 RCP095 822J
L401	EO-394589J	COIL FIX 1 RCP095 822J
L402	EO-393645J	COIL FIX 1 RCP095 392J
L451	EO-394589J	COIL FIX 1 RCP095 822J
L452	EO-393645J	COIL FIX 1 RCP095 392J
L501	EO-389412J	COIL FIX 1 LAV35VB T05 101K
L551	EO-389412J	COIL FIX 1 LAV35VB T05 101K
T501	EO-395017J	COIL OSC 1 0015-905-0-00
T551	EO-395017J	COIL OSC 1 0015-905-0-00
T901	EO-401093J	COIL OSC 1 T2132(HX) 100KHZ
T902	EO-401093J	COIL OSC 1 T2132(HX) 100KHZ
T951	EO-401093J	COIL OSC 1 T2132(HX) 100KHZ
T952	EO-401093J	COIL OSC 1 T2132(HX) 100KHZ
TR101	ET-394571J	TR 2SC2389 S,E T05
TR102	ET-394571J	TR 2SC2389 S,E T05
TR103	ET-749375	TR 2SC2458 GR
TR104	ET-354364	TR DTC143TS
TR105	ET-394571J	TR 2SC2389 S,E T05
TR106	ET-394571J	TR 2SC2389 S,E T05
TR107	ET-749375	TR 2SC2458 GR
TR108	ET-354364	TR DTC143TS
TR109	ET-354364	TR DTC143TS
TR151	ET-394571J	TR 2SC2389 S,E T05
TR152	ET-394571J	TR 2SC2389 S,E T05
TR153	ET-749375	TR 2SC2458 GR

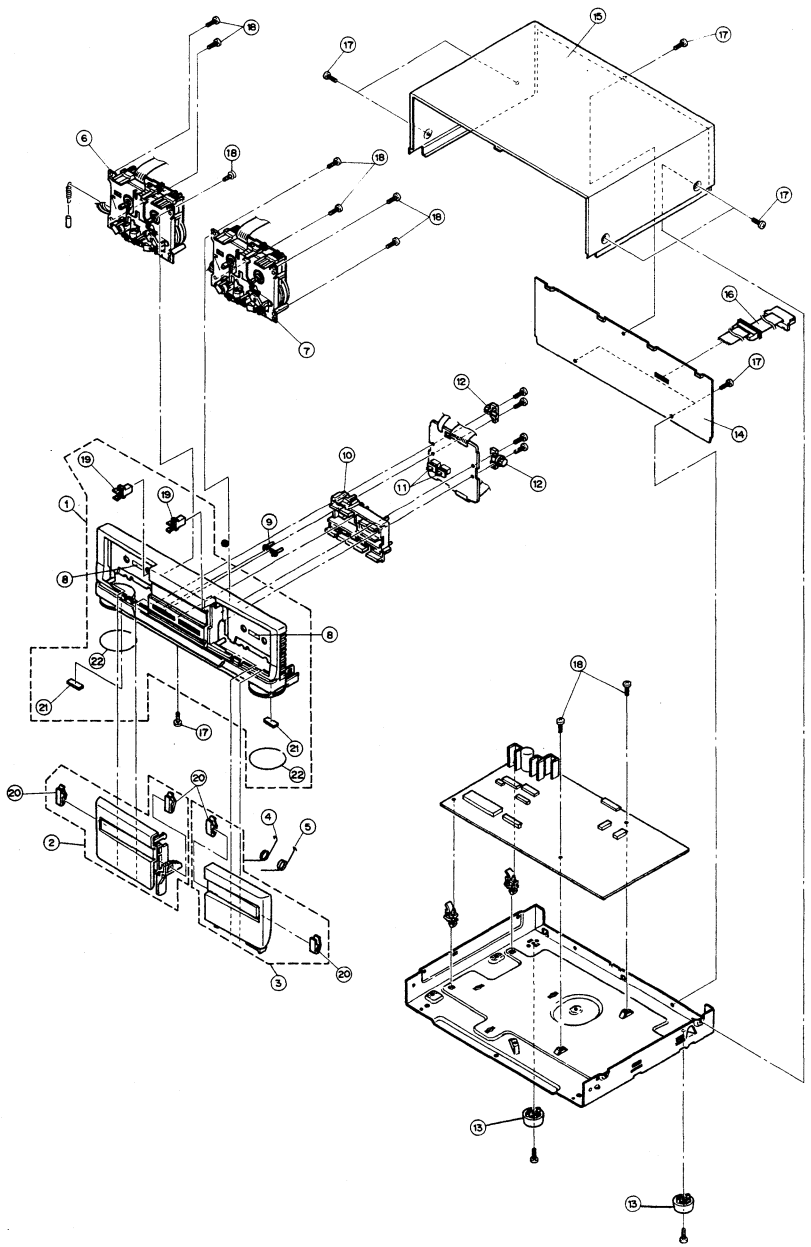
Ref.No.	Part No.	Description
TR154	ET-354364	TR DTC143TS
TR155	ET-394571J	TR 2SC2389 S,E T05
TR156	ET-394571J	TR 2SC2389 S,E T05
TR157	ET-749375	TR 2SC2458 GR
TR158	ET-354364	TR DTC143TS
TR159	ET-354364	TR DTC143TS
TR181	ET-394570J	TR 2SA1038 S T05
TR182	ET-354414	TR DTC144ES
TR183	ET-373391	TR DTC143ZS
TR184	ET-394570J	TR 2SA1038 S T05
TR185	ET-354414	TR DTC144ES
TR186	ET-373391	TR DTC143ZS
TR187	ET-354414	TR DTC144ES
TR188	ET-354414	TR DTC144ES
TR189	ET-354414	TR DTC144ES
TR190	ET-373391	TR DTC143ZS
TR191	ET-354365	TR DTC114YS
TR201	ET-749375	TR 2SC2458 GR
TR202	ET-749375	TR 2SC2458 GR
TR251	ET-749375	TR 2SC2458 GR
TR252	ET-749375	TR 2SC2458 GR
TR281	ET-354365	TR DTC114YS
TR301	ET-749375	TR 2SC2458 GR
TR302	ET-354364	TR DTC143TS
TR303	ET-354364	TR DTC143TS
TR304	ET-354364	TR DTC143TS
TR351	ET-749375	TR 2SC2458 GR
TR352	ET-354364	TR DTC143TS
TR353	ET-354364	TR DTC143TS
TR354	ET-354364	TR DTC143TS
TR401	ET-749375	TR 2SC2458 GR
TR402	ET-354364	TR DTC143TS
TR403	ET-354364	TR DTC143TS
TR404	ET-354364	TR DTC143TS
TR405	ET-354364	TR DTC143TS
TR406	ET-354364	TR DTC143TS
TR451	ET-749375	TR 2SC2458 GR
TR452	ET-354364	TR DTC143TS
TR453	ET-354364	TR DTC143TS
TR454	ET-354364	TR DTC143TS
TR455	ET-354364	TR DTC143TS
TR456	ET-354364	TR DTC143TS
TR501	ET-354414	TR DTC144ES
TR502	ET-354414	TR DTC144ES
TR503	ET-373391	TR DTC143ZS
TR504	ET-394643J	TR 2SC3113 A,B T05
TR505	ET-366581	TR 2SD1762 E,F
TR506	ET-749375	TR 2SC2458 GR
TR507	ET-394642J	TR 2SC1840 F,E T05
TR508	ET-354364	TR DTC143TS
TR509	ET-354364	TR DTC143TS
TR510	ET-400741J	TR 2SC3708 T T05
TR511	ET-400741J	TR 2SC3708 T T05
TR551	ET-354414	TR DTC144ES
TR552	ET-354414	TR DTC144ES
TR553	ET-373391	TR DTC143ZS
TR554	ET-394643J	TR 2SC3113 A,B T05
TR555	ET-366581	TR 2SD1762 E,F
TR556	ET-749375	TR 2SC2458 GR
TR557	ET-394642J	TR 2SC1840 F,E T05
TR558	ET-354364	TR DTC143TS
TR559	ET-354364	TR DTC143TS
TR560	ET-400741J	TR 2SC3708 T T05
TR561	ET-400741J	TR 2SC3708 T T05
TR601	ET-749375	TR 2SC2458 GR
TR602	ET-749375	TR 2SC2458 GR
TR603	ET-749375	TR 2SC2458 GR
TR604	ET-749375	TR 2SC2458 GR
TR651	ET-749375	TR 2SC2458 GR
TR652	ET-749375	TR 2SC2458 GR
TR701	ET-749375	TR 2SC2458 GR
TR702	ET-366365	TR 2SB1185 E,F
TR703	ET-749375	TR 2SC2458 GR
TR704	ET-366581	TR 2SD1762 E,F
TR705	ET-749375	TR 2SC2458 GR
TR706	ET-749375	TR 2SC2458 GR
TR707	ET-366581	TR 2SD1762 E,F
TR708	ET-354414	TR DTC144ES
TR709	ET-373392	TR DTC124XS
TR710	ET-373392	TR DTC124XS
TR711	ET-749375	TR 2SC2458 GR
TR712	ET-749375	TR 2SC2458 GR
TR713	ET-373382	TR DTA143ZS

Ref.No.	Part No.	Description
TR714	ET-396072J	TR 2SD2159 V,W
TR715	ET-396072J	TR 2SD2159 V,W
TR716	ET-396072J	TR 2SD2159 V,W
TR717	ET-396072J	TR 2SD2159 V,W
TR718	ET-396072J	TR 2SD2159 V,W
TR719	ET-749377	TR 2SA1048 GR
TR720	ET-749377	TR 2SA1048 GR
TR721	ET-369248	TR DTA114YS
TR722	ET-373382	TR DTA143ZS
TR723	ET-373382	TR DTA143ZS
TR724	ET-360399	TR DTC114TS
TR725	ET-360399	TR DTC114TS
TR726	ET-360399	TR DTC114TS
TR727	ET-373485	TR DTC123JS
TR728	ET-373485	TR DTC123JS
TR729	ET-749375	TR 2SC2458 GR
VR101	EV-362115	R S-FIX H RH0615C 0.10W 153
VR102	EV-362115	R S-FIX H RH0615C 0.10W 153
VR151	EV-362115	R S-FIX H RH0615C 0.10W 153
VR152	EV-362115	R S-FIX H RH0615C 0.10W 153
VR301	EV-356576	R S-FIX H RH0615C 0.10W 472
VR351	EV-356576	R S-FIX H RH0615C 0.10W 472
VR401	EV-356576	R S-FIX H RH0615C 0.10W 472
VR451	EV-356576	R S-FIX H RH0615C 0.10W 472
VR501	EV-356583	R S-FIX H RH0615C 0.10W 332
VR502	EV-356581	R S-FIX H RH0615C 0.10W 331
VR551	EV-356583	R S-FIX H RH0615C 0.10W 332
VR552	EV-356581	R S-FIX H RH0615C 0.10W 331
VR701	EV-355380	R S-FIX H V8K4-11(1S) 0.10W202
VR702	EV-394561J	R S-FIX H V8K4-11(1S) 0.10W102
VR703	EV-355380	R S-FIX H V8K4-11(1S) 0.10W202
VR704	EV-394561J	R S-FIX H V8K4-11(1S) 0.10W102
VR901	EV-356577	R S-FIX H RH0615C 0.10W 103
VR902	EV-356577	R S-FIX H RH0615C 0.10W 103
VR951	EV-356577	R S-FIX H RH0615C 0.10W 103
VR952	EV-356577	R S-FIX H RH0615C 0.10W 103
X701	EI-719635	OSC CE KBR-4.19M 4.19MHZ

7. OPERATION P.C BOARD

Ref.No.	Part No.	Description
D801	ED-394723J	D LED GL3HY44 YELLOW
D802	ED-394723J	D LED GL3HY44 YELLOW
D803	ED-382365J	D LED SLR-34VC3F RED [HX-M830W]
D804	ED-394723J	D LED GL3HY44 YELLOW [HX-M830W]
D805	ED-394723J	D LED GL3HY44 YELLOW
D806	ED-394723J	D LED GL3HY44 YELLOW
D807	ED-394723J	D LED GL3HY44 YELLOW
D808	ED-382365J	D LED SLR-34VC3F RED
D809	ED-394723J	D LED GL3HY44 YELLOW
D810	ED-394723J	D LED GL3HY44 YELLOW
D811	ED-382365J	D LED SLR-34VC3F RED
D812	ED-382365J	D LED SLR-34VC3F RED
D813	ED-394723J	D LED GL3HY44 YELLOW
SW801	ES-390621J	SW SLIDE SSSF 01-03N [DOLBY]
SW802	ES-390621J	SW SLIDE SSSF 01-03N [R/P MODE,HX-M830W]
TS801	ES-394818J	SW TACT SOR-123HS T05 [STOP]
TS802	ES-394818J	SW TACT SOR-123HS T05 [FWD]
TS803	ES-394818J	SW TACT SOR-123HS T05 [REV]
TS804	ES-394818J	SW TACT SOR-123HS T05 [FF]
TS805	ES-394818J	SW TACT SOR-123HS T05 [RWD]
TS808	ES-394818J	SW TACT SOR-123HS T05 [OPERATION]
TS809	ES-394818J	SW TACT SOR-123HS T05 [AUTO MUTE]
TS810	ES-394818J	SW TACT SOR-123HS T05 [REC PAUSE]
TS811	ES-394818J	SW TACT SOR-123HS T05 [DUB X1]
TS812	ES-394818J	SW TACT SOR-123HS T05 [DUB X2]

FINAL ASSEMBLY



8. FINAL ASSEMBLY

Ref.No.	Part No.	Description
1A	BD-T2131A040A	PANEL FRONT BLK HX-M630W-B
1B	BD-T2131A040B	PANEL FRONT BLK HX-M830W-B
2A	BD-T2131A050A	LID PANEL(L) BLK HX-M630W-B
2B	BD-T2131A050B	LID PANEL(L) BLK HX-M830W-B
3A	BD-T2131A060A	LID PANEL(R) BLK HX-M630W-B
3B	BD-T2131A060B	LID PANEL(R) BLK HX-M830W-B
4	ZG-401852M	SP TORSION EJECT(L)
5	ZG-401853M	SP TORSION EJECT(R)
6A	BB-401096M	MECHA GAK-5PB-2 [TAPE-1,HX-M630W]
6B	BB-400945J	MECHA GAS3602D [TAPE-1,HX-M830W]
7A	BB-403466M	MECHA GAK3603D [TAPE-2,HX-M630W]
7B	BB-405194J	MECHA GAS-3601D [TAPE-2,HX-M830M]
8	SE-394092M	REFLECTOR
9	SE-394085M	LENS DUB
10	SK-401862M	BUTTON OPERATION
11	SK-394084M	KNOB SLIDE
12	MZ-380875J	DAMPER 1G88-L
13	SA-394127M1	FOOT REAR
14A	SP-401854M	PANEL REAR HX-M630W(U) [U]
14B	SP-401855M	PANEL REAR HX-M630W(E) [E]
14C	SP-401856M	PANEL REAR HX-M830W(U) [U]
14D	SP-401857M	PANEL REAR HX-M830W(E) [E]
15A	SP-394095M	COVER UPPER HX [HX-M630W]
15B	SP-396331M	COVER UPPER HX B [HX-M830W]
16	EW-390605J	WIRE ASSY T2127(B) 15P
17	ZS-387983J	ST BID30X08STL BNI EARTH LOCK
18	ZS-331182	BT BID30X08STL BNI
19	SZ-401094J	PUSH CATCH 3Y18
20	ZG-406105M	SP PLATE CASSETTE HOLDER(2)
21	SA-394136M	CUSHION FOOT
22	SZ-401762M	RING FOOT

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

MEMO

ABBREVIATIONS (CASSETTE)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi PleX
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord (RECording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF (or F.FWD)	Fast Foward	SIG	SIGnal
FLD	FLuoresent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLtage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitining Diode	X'TAL	cysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MIcroCOMputer	X2	Dubble speed

AKAI

MODEL HX-M630W
MODEL HX-M830W

SCHEMATIC DIAGRAMS
AND PC BOARDS

TABLE OF CONTENTS

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6. DECK B PC BOARD 7
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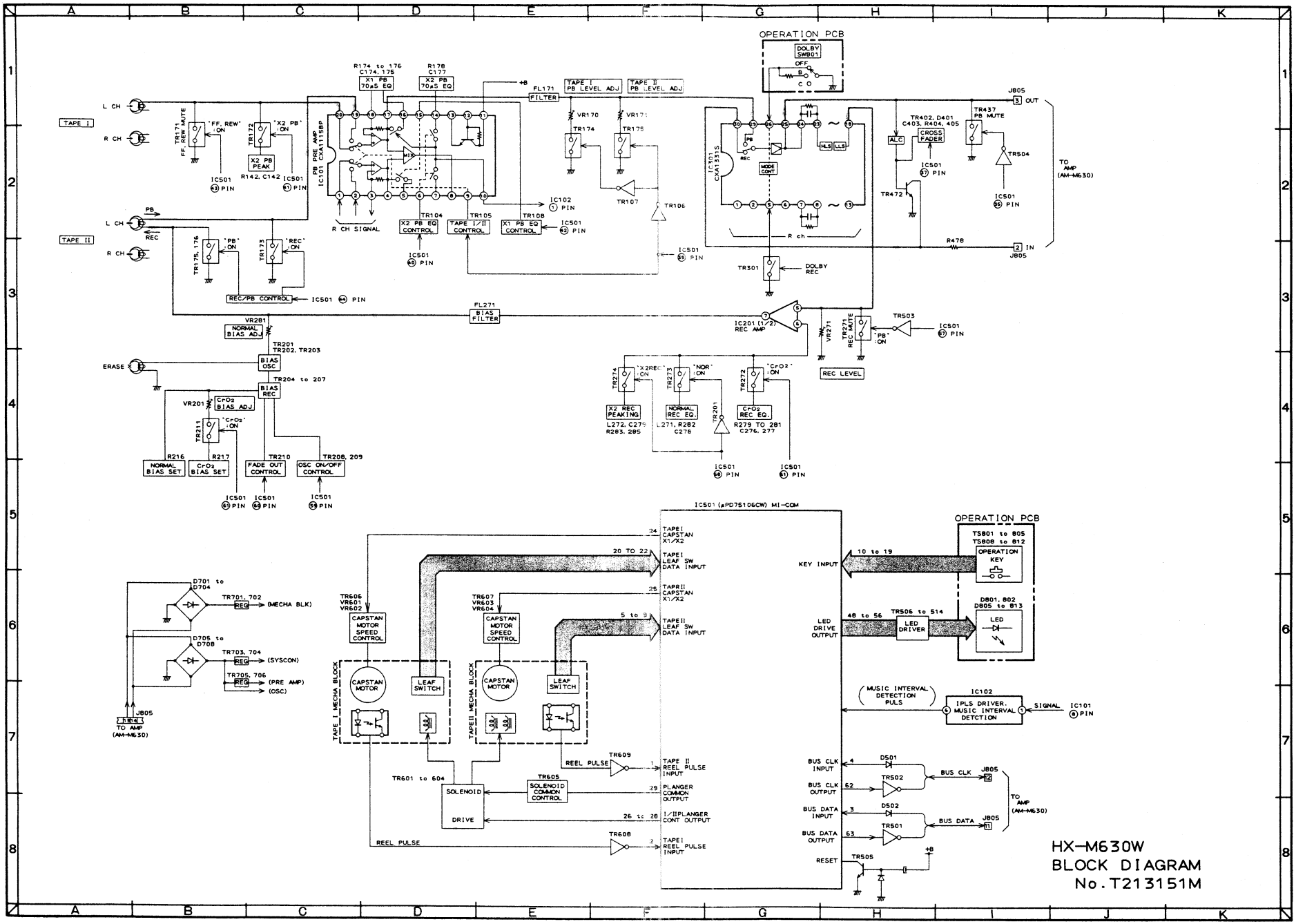
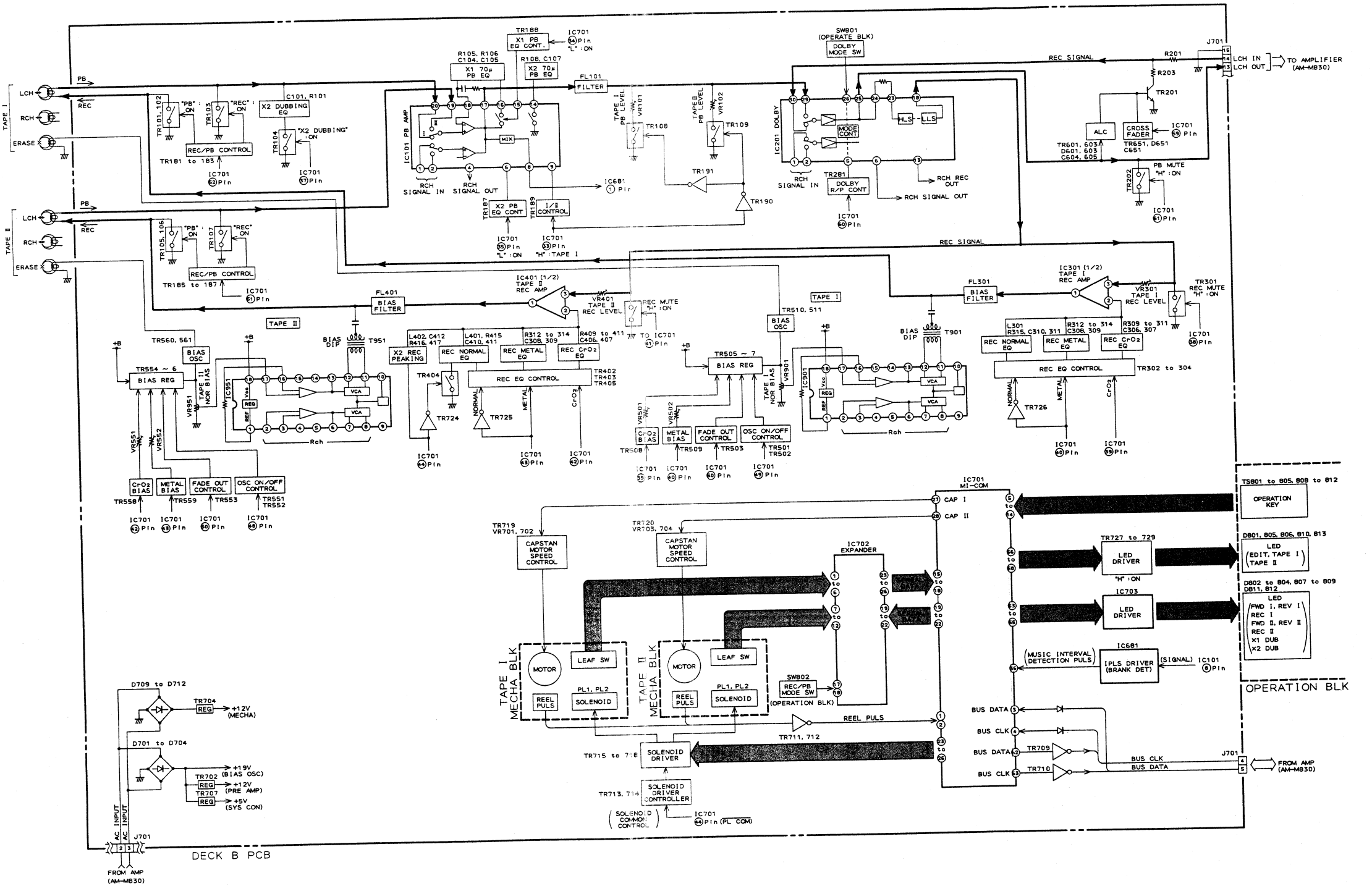
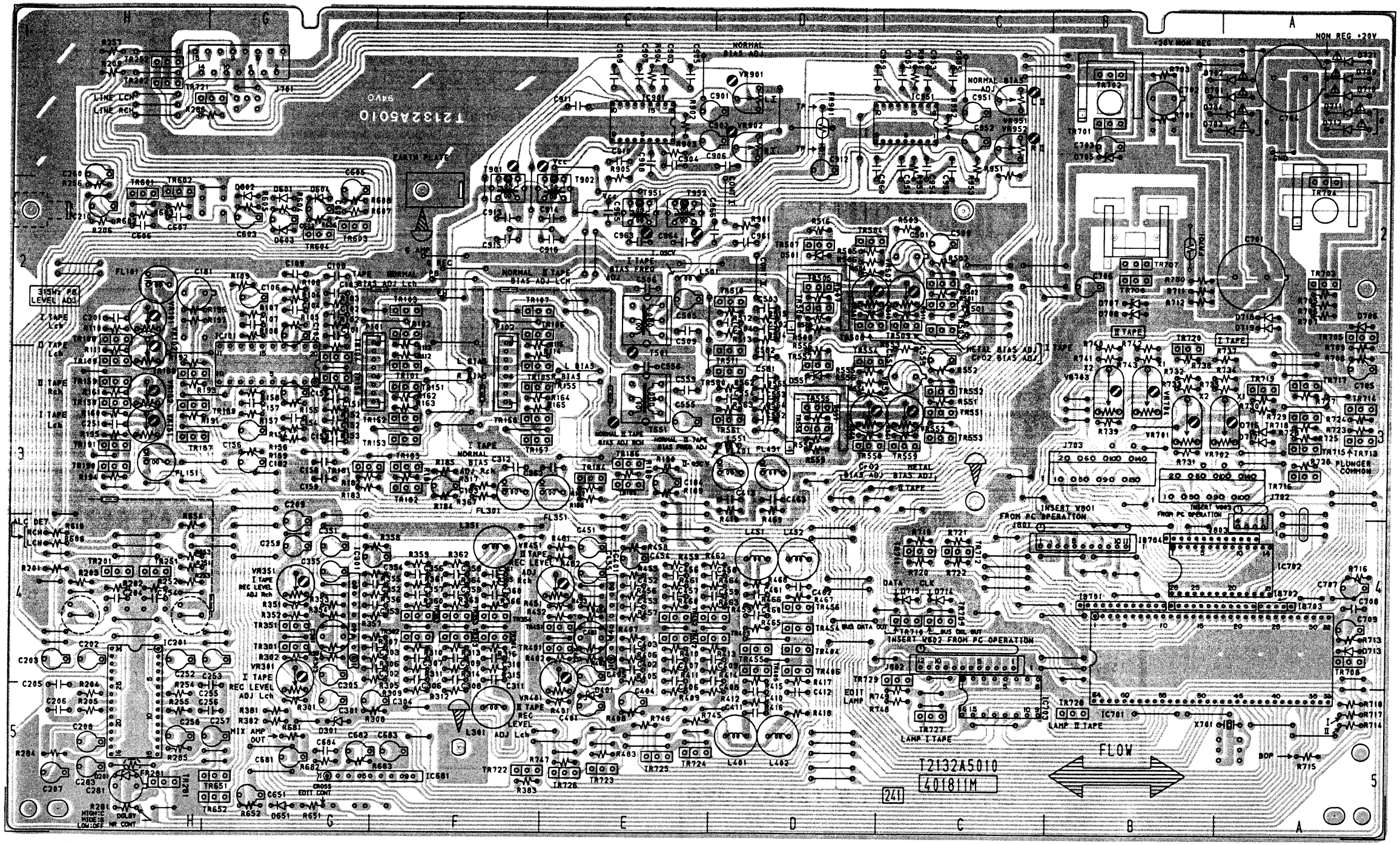

OPERATION PCB
DOLBY SW801
TAPE I
TAPE II
L CH
R CH
PB
REC
FF, REW MUTE TR171
FF, REW ON
X2 PB ON TR172
X2 PB PEAK
R142, C142
PB PRE AMP IC101 CXA1115BP
R174 to 176 C174, 175
X1 PB 70μS EQ
R178 C177
X2 PB 70μS EQ
FL171 FILTER
TAPE I PB LEVEL ADJ
TAPE II PB LEVEL ADJ
VR170
VR171
TR174
TR175
TR107
TR106
R CH SIGNAL
X2 PB EQ CONTROL TR104
TAPE I/II CONTROL TR105
X1 PB EQ CONTROL TR108
IC102 1 PIN
IC501 (μPD75106CW) MI-COM
IC101 CXA1335S
MODE CONT
R ch
TR402, D401 C403, R404, 405
ALC
CROSS FADER
TR437 PB MUTE
TR504
TR472
J805 5 OUT
TO AMP (AM-M630)
R478
2 IN J805
TR301
DOLBY REC
PB ON TR175, 176
REC ON TR173
REC/PB CONTROL
FL271 BIAS FILTER
IC201 (1/2) REC AMP
VR271
REC LEVEL
TR271 REC MUTE
TR503
VR281 NORMAL BIAS ADJ
TR201 TR202, TR203
BIAS OSC
ERASE
TR204 to 207
BIAS REC
VR201 CrO2 BIAS ADJ
CrO2 ON TR211
R216 NORMAL BIAS SET
R217 CrO2 BIAS SET
TR210 FADE OUT CONTROL
TR208, 209 OSC ON/OFF CONTROL
X2REC ON TR274
NOR ON TR273
CrO2 ON TR272
X2 REC PEAKING L272, C275 R283, 285
NORMAL REC EQ. L271, R282 C278
CrO2 REC EQ. R279 TO 281 C276, 277
TR201
IC501 (μPD75106CW) MI-COM
TAPE I CAPSTAN X1/X2
TAPE I LEAF SW DATA INPUT
TAPE II CAPSTAN X1/X2
TAPE II LEAF SW DATA INPUT
TR606 VR601 VR602
TR607 VR603 VR604
CAPSTAN MOTOR SPEED CONTROL
CAPSTAN MOTOR
LEAF SWITCH
TAPE I MECHA BLOCK
TAPE II MECHA BLOCK
REEL PULSE TR609
TAPE II REEL PULSE INPUT
TR601 to 604
SOLENOID DRIVE
TR605 SOLENOID COMMON CONTROL
PLANGER COMMON OUTPUT
I/II PLANGER CONT OUTPUT
TR608
TAPE I REEL PULSE INPUT
D701 to D704
TR701, 702
(MECHA BLK)
D705 to D708
TR703, 704
(SYSCON)
TR705, 706
(PRE AMP)
(OSC)
J805 TO AMP (AM-M630)
KEY INPUT
10 to 19
TS801 to 805 TS808 to 812
OPERATION KEY
D801, 802 D805 to 813
LED
LED DRIVE OUTPUT
48 to 56
TR506 to 514
LED DRIVER
MUSIC INTERVAL DETECTION PULS
IC102 IPLS DRIVER, MUSIC INTERVAL DETCTION
SIGNAL IC101 6 PIN
BUS CLK INPUT
BUS CLK OUTPUT
BUS DATA INPUT
BUS DATA OUTPUT
D501
D502
TR502
TR501
BUS CLK J805 12
BUS DATA J805 11
TO AMP (AM-M630)
RESET
TR505
HX-M630W
BLOCK DIAGRAM
No.T213151M



HX-M830W
BLOCK DIA
No.T213



PRINCIPAL PARTS LOCATION

ICS

IC101	G3
IC201	H5
IC301	G4
IC401	E4
IC681	F,G4
IC701	A,B4
IC702	A4
IC703	C5
IC901	E1
IC951	C1

CONNECTORS

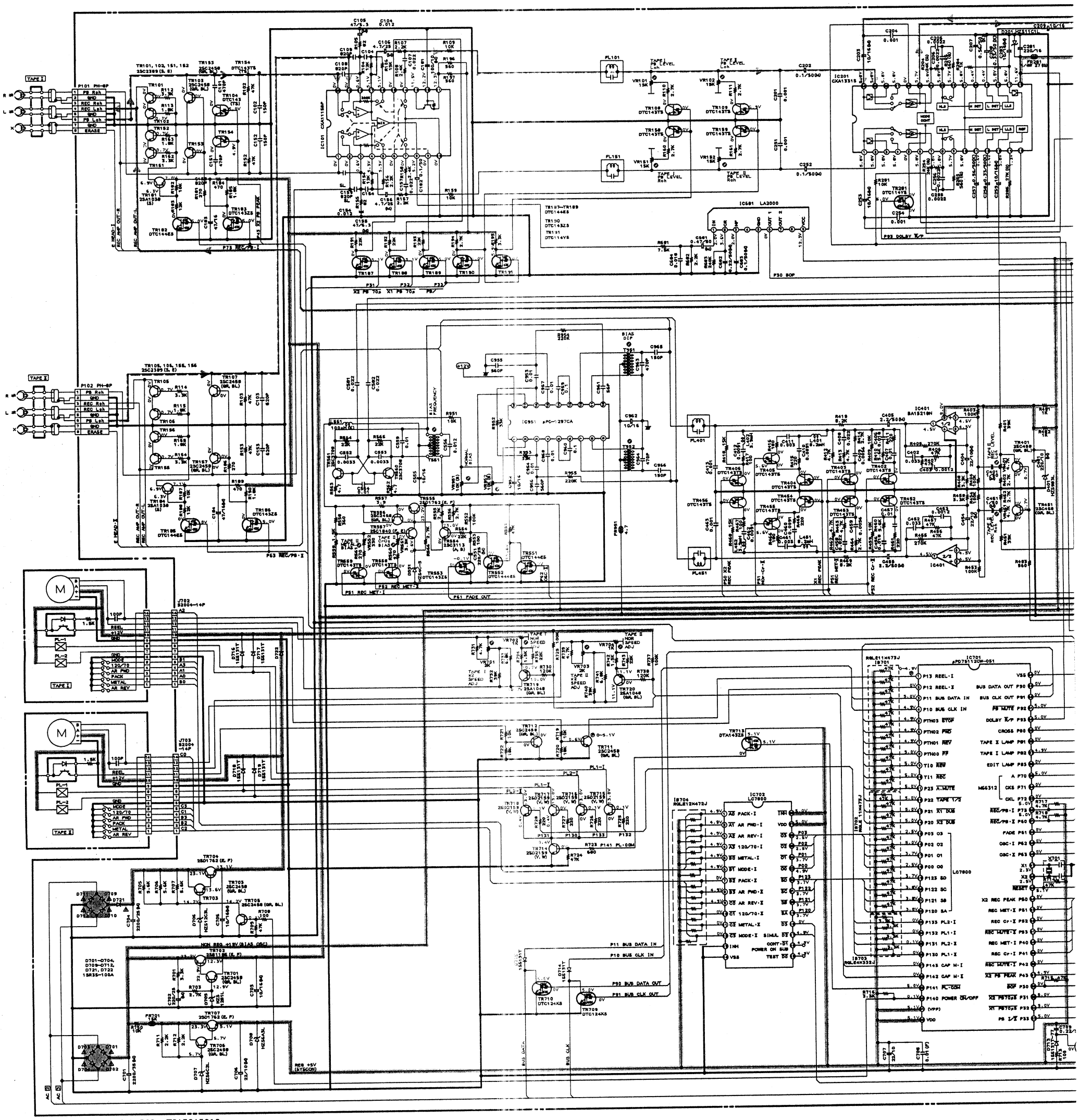
P101	F3
P102	F3
J701	G1
J702	A,B3
J703	B3
J801	B4
J802	C4
J803	A4

TRANSISTORS

TR101	F3
TR102	F2
TR103	F2
TR104	G3
TR105	F3
TR106	F2
TR107	F2
TR108	H2
TR109	H2
TR151	F3
TR152	F3
TR153	F3
TR154	G3
TR155	F3
TR156	F3
TR157	F3
TR158	H2
TR159	H2
TR181	G3
TR182	F3
TR183	F3
TR184	E3
TR185	E3
TR186	E3
TR187	H3
TR188	H3
TR189	H3
TR190	H3
TR191	H3
TR201	H4
TR202	H1
TR251	H4
TR252	H1
TR281	H5
TR301	G4
TR302	F4
TR303	F4
TR304	F4
TR351	G4
TR352	F4
TR353	F4
TR354	F4
TR401	E4
TR402	E4
TR403	D4
TR404	D4
TR405	D4
TR406	D4
TR451	E4
TR452	E4
TR453	D4
TR454	D4
TR455	D4
TR456	D4
TR501	C2
TR502	C2
TR503	C2
TR504	D2
TR505	D2
TR506	D2
TR507	D2
TR508	D2
TR509	C2
TR510	D2
TR511	D2
TR551	C3
TR552	C3
TR553	D3
TR554	C3
TR555	D3
TR556	D3
TR557	D3
TR558	D3
TR559	C3
TR560	D3
TR561	D3
TR601	H2
TR602	H2
TR603	G2
TR604	G2
TR651	G5
TR652	G5
TR701	B1
TR702	B1
TR703	A2
TR704	A1
TR705	A2
TR706	B2
TR707	B2
TR708	A4
TR709	C4
TR710	C4
TR711	C4
TR712	C4
TR713	A3
TR714	A3
TR715	A3
TR716	A3
TR717	A3
TR718	A3
TR719	A3
TR720	B2
TR721	G1
TR722	F5
TR723	E5
TR724	E5
TR725	E5
TR726	E5
TR727	C5
TR728	B5
TR729	C4

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT


TAPE I
P101 PH-8P
P102 PH-8P
PB Rch
GND
REC Rch
REC Lch
PB Lch
ERASE
TR101, 102, 151, 152
2SC2389 (S, E)
TR153
2SC2458
(GR, BL)
TR154
DTC143TS
TR103
2SC2458
(GR, BL)
TR104
DTC143TS
TR105, 106, 155, 156
TR107
2SC2458
(GR, BL)
TR157
2SC2458
(GR, BL)
TR158
TR183
DTC143ZS
TR182
DTC144ES
TR181
2SA1038
(S)
TR195
DTC144ES
TR185
DTC143ZS
IC101
CXA1118AP
FL101
FL151
TAPE II PB Level Rch
TAPE II REC Level Rch
VR101 15K
VR102 15K
VR151 15K
VR152 15K
TR108 DTC143TS
TR109 DTC143TS
TR158 DTC143TS
TR159 DTC143TS
C202 0.1/50V
C252 0.1/50V
IC201
CXA1331S
TR291
DTC114YS
IC501 LA2000
TR187–TR189
DTC144ES
TR190
DTC143ZS
TR191
DTC114YS
TR187
TR188
TR189
TR190
TR191
P30 BOP
P93 DOLBY N/R
P73 REC/PB-I
P43 REC/PB-II
REC AMP OUT-R
REC AMP OUT-L
E HEAD-I
P31
P32
P33
P63 REC/PB-I
P61 FADE OUT
PS1 REC MET-I
PS2 REC MET-II
TR556
2SD1762 (E, F)
TR555
2SC2458
(GR, BL)
TR554
2SC2458
(GR, BL)
TR553
DTC143ZS
TR552
DTC144ES
TR551
DTC144ES
TR559
DTC143TS
TR558
DTC143TS
TR557
2SC1845
(S, T)
TR556
2SC1740
(S, R)
TR555
2SC2458
(GR, BL)
TR554
2SC2458
(GR, BL)
TR553
DTC143ZS
TR552
DTC144ES
TR551
DTC144ES
TR561
2SC3709
TR562
2SC3709
TR951
2SC2458
(GR, BL)
TR952
2SC2458
(GR, BL)
IC951 μPC4297CA
BIAS DIF
BIAS FREQUENCY
NORMAL BIAS
VR951 10K (B)
VR952 10K (B)
FB951 4.7
DS51 1SS244-3
PL401
PL451
IC401
BA15218N
TR401
2SC458
(GR, BL)
TR451
2SC458
(GR, BL)
TR405
DTC143TS
TR406
DTC143TS
TR403
DTC143TS
TR404
DTC143TS
TR455
DTC143TS
TR456
DTC143TS
TR453
DTC143TS
TR454
DTC143TS
TR451
DTC143TS
TR452
DTC143TS
TAPE II REC Level Rch
P50 X2 PEAK REC
P51 REC MET-II
P52 REC Cr-II
X1 PEAK
P53 REC MUTE-II
P54 REC Cr-I
P55 REC MET-I
P56 REC MUTE-I
P57 X2 PEAK
P58 X1 PEAK
P59 REC Cr-II
P60 REC MUTE-II
P61 REC MET-II
P62 REC Cr-II
P63 REC MUTE-II
P64 X2 PEAK
P65 X1 PEAK
P66 REC Cr-I
P67 REC MUTE-I
P68 REC MET-I
P69 REC Cr-I
P70 REC MUTE-I
P71 X2 PEAK
P72 X1 PEAK
P73 REC Cr-II
P74 REC MUTE-II
P75 REC MET-II
P76 REC Cr-II
P77 REC MUTE-II
P78 X2 PEAK
P79 X1 PEAK
P80 REC Cr-I
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P82 REC MET-I
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P84 REC MUTE-I
P85 REC MET-I
P86 REC Cr-I
P87 REC MUTE-I
P88 X2 PEAK
P89 X1 PEAK
P90 REC Cr-II
P91 REC MUTE-II
P92 REC MET-II
P93 REC Cr-II
P94 REC MUTE-II
P95 X2 PEAK
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P97 REC Cr-I
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P101 REC MUTE-I
P102 X2 PEAK
P103 X1 PEAK
P104 REC Cr-II
P105 REC MUTE-II
P106 REC MET-II
P107 REC Cr-II
P108 REC MUTE-II
P109 X2 PEAK
P110 X1 PEAK
P111 REC Cr-I
P112 REC MUTE-I
P113 REC MET-I
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P118 REC Cr-II
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P120 REC MET-II
P121 REC Cr-II
P122 REC MUTE-II
P123 X2 PEAK
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P127 REC MET-I
P128 REC Cr-I
P129 REC MUTE-I
P130 X2 PEAK
P131 X1 PEAK
P132 REC Cr-II
P133 REC MUTE-II
P134 REC MET-II
P135 REC Cr-II
P136 REC MUTE-II
P137 X2 PEAK
P138 X1 PEAK
P139 REC Cr-I
P140 REC MUTE-I
P141 REC MET-I
P142 REC Cr-I
P143 REC MUTE-I
P144 X2 PEAK
P145 X1 PEAK
P146 REC Cr-II
P147 REC MUTE-II
P148 REC MET-II
P149 REC Cr-II
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P151 X2 PEAK
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P153 REC Cr-I
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P155 REC MET-I
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P160 REC Cr-II
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P163 REC Cr-II
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P547 REC MET-I
P548 REC Cr-I
P549 REC MUTE-I
P550 X2 PEAK
P551 X1 PEAK
P552 REC Cr-II
P553 REC MUTE-II
P554 REC MET-II
P555 REC Cr-II
P556 REC MUTE-II
P557 X2 PEAK
P558 X1 PEAK
P559 REC Cr-I
P560 REC MUTE-I
P561 REC MET-I
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P564 X2 PEAK
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P568 REC MET-II
P569 REC Cr-II
P570 REC MUTE-II
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P573 REC Cr-I
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P580 REC Cr-II
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P587 REC Cr-I
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P589 REC MET-I
P590 REC Cr-I
P591 REC MUTE-I
P592 X2 PEAK
P593 X1 PEAK
P594 REC Cr-II
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P596 REC MET-II
P597 REC Cr-II
P598 REC MUTE-II
P599 X2 PEAK
P600 X1 PEAK
P601 REC Cr-I
P602 REC MUTE-I
P603 REC MET-I
P604 REC Cr-I
P605 REC MUTE-I
P606 X2 PEAK
P607 X1 PEAK
P608 REC Cr-II
P609 REC MUTE-II
P610 REC MET-II
P611 REC Cr-II
P612 REC MUTE-II
P613 X2 PEAK
P614 X1 PEAK
P615 REC Cr-I
P616 REC MUTE-I
P617 REC MET-I
P618 REC Cr-I
P619 REC MUTE-I
P620 X2 PEAK
P621 X1 PEAK
P622 REC Cr-II
P623 REC MUTE-II
P624 REC MET-II
P625 REC Cr-II
P626 REC MUTE-II
P627 X2 PEAK
P628 X1 PEAK
P629 REC Cr-I
P630 REC MUTE-I
P631 REC MET-I
P632 REC Cr-I
P633 REC MUTE-I
P634 X2 PEAK
P635 X1 PEAK
P636 REC Cr-II
P637 REC MUTE-II
P638 REC MET-II
P639 REC Cr-II
P640 REC MUTE-II
P641 X2 PEAK
P642 X1 PEAK
P643 REC Cr-I
P644 REC MUTE-I
P645 REC MET-I
P646 REC Cr-I
P647 REC MUTE-I
P648 X2 PEAK
P649 X1 PEAK
P650 REC Cr-II
P651 REC MUTE-II
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P653 REC Cr-II
P654 REC MUTE-II
P655 X2 PEAK
P656 X1 PEAK
P657 REC Cr-I
P658 REC MUTE-I
P659 REC MET-I
P660 REC Cr-I
P661 REC MUTE-I
P662 X2 PEAK
P663 X1 PEAK
P664 REC Cr-II
P665 REC MUTE-II
P666 REC MET-II
P667 REC Cr-II
P668 REC MUTE-II
P669 X2 PEAK
P670 X1 PEAK
P671 REC Cr-I
P672 REC MUTE-I
P673 REC MET-I
P674 REC Cr-I
P675 REC MUTE-I
P676 X2 PEAK
P677 X1 PEAK
P678 REC Cr-II
P679 REC MUTE-II
P680 REC MET-II
P681 REC Cr-II
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P683 X2 PEAK
P684 X1 PEAK
P685 REC Cr-I
P686 REC MUTE-I
P687 REC MET-I
P688 REC Cr-I
P689 REC MUTE-I
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P691 X1 PEAK
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P701 REC MET-I
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P719 X1 PEAK
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P726 X1 PEAK
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P768 X1 PEAK
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P774 X2 PEAK
P775 X1 PEAK
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P777 REC MUTE-II
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P875 REC MUTE-II
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P877 REC Cr-II
P878 REC MUTE-II
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P887 X1 PEAK
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P894 X1 PEAK
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P908 X1 PEAK
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P1002 REC MET-II
P1003 REC Cr-II
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P1006 X1 PEAK
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P1008 REC MUTE-I
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P1010 REC Cr-I
P1011 REC MUTE-I
P1012 X2 PEAK
P1013 X1 PEAK
P1014 REC Cr-II
P1015 REC MUTE-II
P1016 REC MET-II
P1017 REC Cr-II
P1018 REC MUTE-II
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P1020 X1 PEAK
P1021 REC Cr-I
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P1023 REC MET-I
P1024 REC Cr-I
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P1036 REC MUTE-I
P1037 REC MET-I
P1038 REC Cr-I
P1039 REC MUTE-I
P1040 X2 PEAK
P1041 X1 PEAK
P1042 REC Cr-II
P1043 REC MUTE-II
P1044 REC MET-II
P1045 REC Cr-II
P1046 REC MUTE-II
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P1048 X1 PEAK
P1049 REC Cr-I
P1050 REC MUTE-I
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P1052 REC Cr-I
P1053 REC MUTE-I
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P1055 X1 PEAK
P1056 REC Cr-II
P1057 REC MUTE-II
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P1059 REC Cr-II
P1060 REC MUTE-II
P1061 X2 PEAK
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P1063 REC Cr-I
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P1065 REC MET-I
P1066 REC Cr-I
P1067 REC MUTE-I
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P1069 X1 PEAK
P1070 REC Cr-II
P1071 REC MUTE-II
P1072 REC MET-II
P1073 REC Cr-II
P1074 REC MUTE-II
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P1076 X1 PEAK
P1077 REC Cr-I
P1078 REC MUTE-I
P1079 REC MET-I
P1080 REC Cr-I
P1081 REC MUTE-I
P1082 X2 PEAK
P1083 X1 PEAK
P1084 REC Cr-II
P1085 REC MUTE-II
P1086 REC MET-II
P1087 REC Cr-II
P1088 REC MUTE-II
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P1092 REC MUTE-I
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P1094 REC Cr-I
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P1102 REC MUTE-II
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P1104 X1 PEAK
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P1106 REC MUTE-I
P1107 REC MET-I
P1108 REC Cr-I
P1109 REC MUTE-I
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P1118 X1 PEAK
P1119 REC Cr-I
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P1122 REC Cr-I
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P1132 X1 PEAK
P1133 REC Cr-I
P1134 REC MUTE-I
P1135 REC MET-I
P1136 REC Cr-I
P1137 REC MUTE-I
P1138 X2 PEAK
P1139 X1 PEAK
P1140 REC Cr-II
P1141 REC MUTE-II
P1142 REC MET-II
P1143 REC Cr-II
P1144 REC MUTE-II
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P1149 REC MET-I
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P1154 REC Cr-II
P1155 REC MUTE-II
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P1157 REC Cr-II
P1158 REC MUTE-II
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P1172 REC MUTE-II
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P1174 X1 PEAK
P1175 REC Cr-I
P1176 REC MUTE-I
P1177 REC MET-I
P1178 REC Cr-I
P1179 REC MUTE-I
P1180 X2 PEAK
P1181 X1 PEAK
P1182 REC Cr-II
P1183 REC MUTE-II
P1184 REC MET-II
P1185 REC Cr-II
P1186 REC MUTE-II
P1187 X2 PEAK
P1188 X1 PEAK
P1189 REC Cr-I
P1190 REC MUTE-I
P1191 REC MET-I
P1192 REC Cr-I
P1193 REC MUTE-I
P1194 X2 PEAK
P1195 X1 PEAK
P1196 REC Cr-II
P1197 REC MUTE-II
P1198 REC MET-II
P1199 REC Cr-II
P1200 REC MUTE-II
P1201 X2 PEAK
P1202 X1 PEAK
P1203 REC Cr-I
P1204 REC MUTE-I
P1205 REC MET-I
P1206 REC Cr-I
P1207 REC MUTE-I
P1208 X2 PEAK
P1209 X1 PEAK
P1210 REC Cr-II
P1211 REC MUTE-II
P1212 REC MET-II
P1213 REC Cr-II
P1214 REC MUTE-II
P1215 X2 PEAK
P1216 X1 PEAK
P1217 REC Cr-I
P1218 REC MUTE-I
P1219 REC MET-I
P1220 REC Cr-I
P1221 REC MUTE-I
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P1223 X1 PEAK
P1224 REC Cr-II
P1225 REC MUTE-II
P1226 REC MET-II
P1227 REC Cr-II
P1228 REC MUTE-II
P1229 X2 PEAK
P1230 X1 PEAK
P1231 REC Cr-I
P1232 REC MUTE-I
P1233 REC MET-I
P1234 REC Cr-I
P1235 REC MUTE-I
P1236 X2 PEAK
P1237 X1 PEAK
P1238 REC Cr-II
P1239 REC MUTE-II
P1240 REC MET-II
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P1242 REC MUTE-II
P1243 X2 PEAK
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P1245 REC Cr-I
P1246 REC MUTE-I
P1247 REC MET-I
P1248 REC Cr-I
P1249 REC MUTE-I
P1250 X2 PEAK
P1251 X1 PEAK
P1252 REC Cr-II
P1253 REC MUTE-II
P1254 REC MET-II
P1255 REC Cr-II
P1256 REC MUTE-II
P1257 X2 PEAK
P1258 X1 PEAK
P1259 REC Cr-I
P1260 REC MUTE-I
P1261 REC MET-I
P1262 REC Cr-I
P1263 REC MUTE-I
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P1266 REC Cr-II
P1267 REC MUTE-II
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P1269 REC Cr-II
P1270 REC MUTE-II
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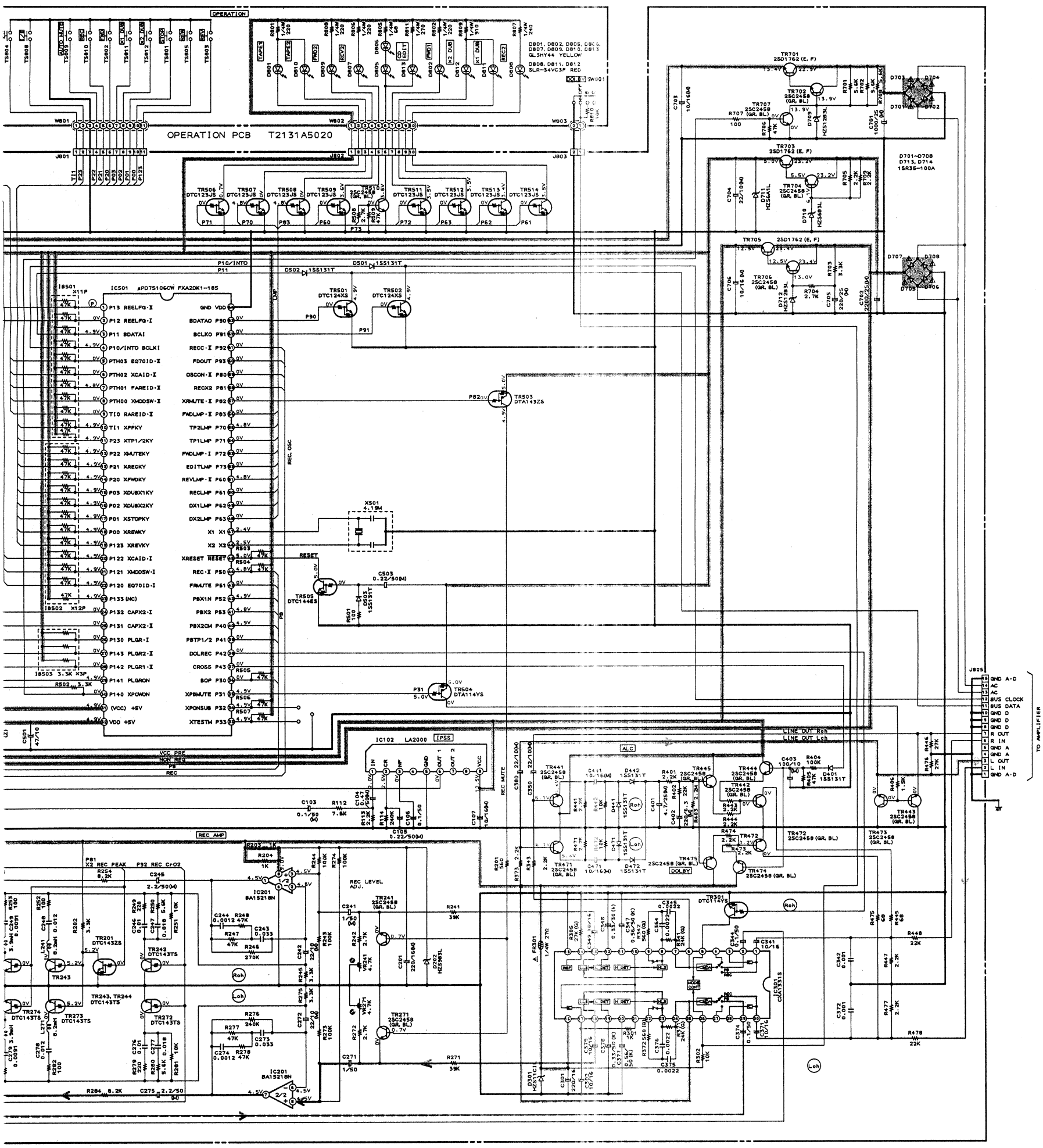
P1272 X1 PEAK
P1273 REC Cr-I
P1274 REC MUTE-I
P1275 REC MET-I
P1276 REC Cr-I
P1277 REC MUTE-I
P1278 X2 PEAK
P1279 X1 PEAK
P1280 REC Cr-II
P1281 REC MUTE-II
P1282 REC MET-II
P1283 REC Cr-II
P1284 REC MUTE-II
P1285 X2 PEAK
P1286 X1 PEAK
P1287 REC Cr-I
P1288 REC MUTE-I
P1289 REC MET-I
P1290 REC Cr-I
P1291 REC MUTE-I
P1292 X2 PEAK
P1293 X1 PEAK
P1294 REC Cr-II
P1295 REC MUTE-II
P1296 REC MET-II
P1297 REC Cr-II
P1298 REC MUTE-II
P1299 X2 PEAK
P1300 X1 PEAK
P1301 REC Cr-I
P1302 REC MUTE-I
P1303 REC MET-I
P1304 REC Cr-I
P1305 REC MUTE-I
P1306 X2 PEAK
P1307 X1 PEAK
P1308 REC Cr-II
P1309 REC MUTE-II
P1310 REC MET-II
P1311 REC Cr-II
P1312 REC MUTE-II
P1313 X2 PEAK
P1314 X1 PEAK
P1315 REC Cr-I
P1316 REC MUTE-I
P1317 REC MET-I
P1318 REC Cr-I
P1319 REC MUTE-I
P1320 X2 PEAK
P1321 X1 PEAK
P1322 REC Cr-II
P1323 REC MUTE-II
P1324 REC MET-II
P1325 REC Cr-II
P1326 REC MUTE-II
P1327 X2 PEAK
P1328 X1 PEAK
P1329 REC Cr-I
P1330 REC MUTE-I
P1331 REC MET-I
P1332 REC Cr-I
P1333 REC MUTE-I
P1334 X2 PEAK
P1335 X1 PEAK
P1336 REC Cr-II
P1337 REC MUTE-II
P1338 REC MET-II
P1339 REC Cr-II
P1340 REC MUTE-II
P1341 X2 PEAK
P1342 X1 PEAK
P1343 REC Cr-I
P1344 REC MUTE-I
P1345 REC MET-I



: B (POWER SUPPLY) LINE

: REC SIGNAL LINE

: PB SIGNAL LINE

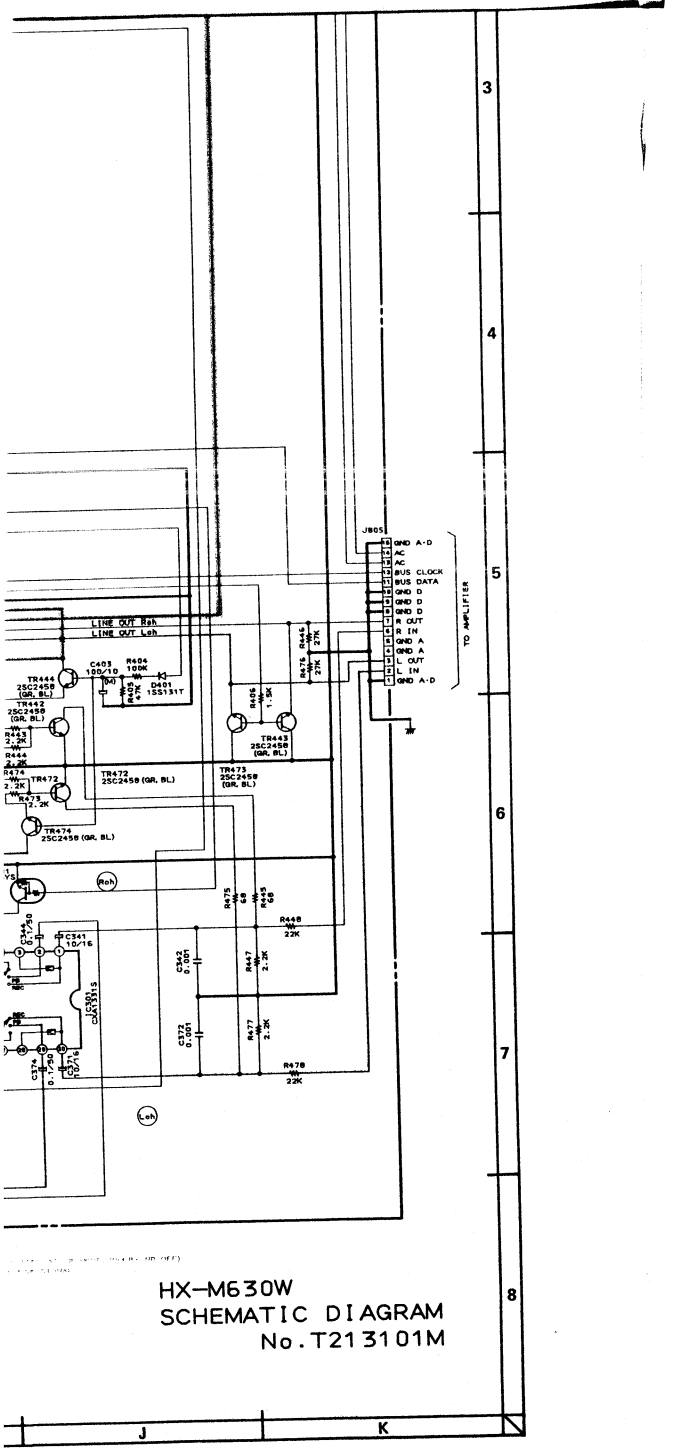
WARNING: ⚠ AND [illegible] INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET [illegible], ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/5W (J)
ALL CAPACITORS IN μF 50WV (J)

VOLTAGE INDICATES AT PB MODE. (DOLBY NR OFF)
(P) MARK IS PULSE SIGNAL.

HX-M630W
SCHEMATIC DIAGRAM
No. T213101M



HX-M630W
SCHEMATIC DIAGRAM
No.T213101M

PRINCIPAL PARTS LOCATION

ICS

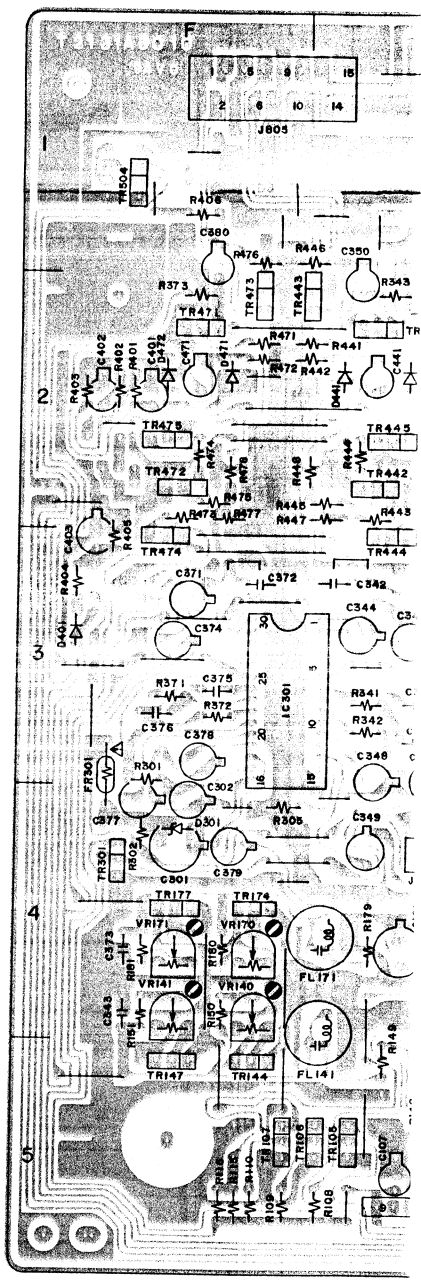
IC101 ..... E4
IC102 ..... E5
IC201 ..... D2
IC301 ..... F3
IC501 ..... A,B4

CONNECTORS

J801 ..... A3
J802 ..... B5
J803 ..... E4
J804 ..... C4
J805 ..... F1
J806 ..... A3
P801 ..... D5
P802 ..... D4

TRANSISTORS

TR101 ..... C5
TR102 ..... C5
TR103 ..... C4
TR104 ..... D5
TR105 ..... E5
TR106 ..... E5
TR107 ..... F5
TR108 ..... C5
TR141 ..... D5
TR142 ..... D5
TR143 ..... D4
TR144 ..... F5
TR145 ..... D4
TR146 ..... D4
TR147 ..... F5
TR171 ..... C5
TR172 ..... C5
TR173 ..... D4
TR174 ..... F4
TR175 ..... C4
TR176 ..... C4
TR177 ..... F4
TR201 ..... C3
TR202 ..... C3
TR203 ..... C3
TR204 ..... C2
TR205 ..... C2
TR206 ..... C2
TR207 ..... C2
TR208 ..... B2
TR209 ..... C2
TR210 ..... C3
TR211 ..... C3
TR241 ..... E2
TR242 ..... D3
TR243 ..... D3
TR244 ..... E3
TR271 ..... D2
TR272 ..... D3
TR273 ..... D3
TR274 ..... D3
TR301 ..... F4
TR441 ..... E2
TR442 ..... E2
TR443 ..... E2
TR444 ..... E3
TR445 ..... E2
TR471 ..... F2
TR472 ..... F2
TR473 ..... F2
TR474 ..... F3
TR475 ..... F2
TR501 ..... C4
TR502 ..... C4
TR503 ..... C5
TR504 ..... F1
TR505 ..... A5
TR506 ..... B5
TR507 ..... B5
TR508 ..... B5
TR509 ..... B5
TR510 ..... B5
TR511 ..... B5
TR512 ..... B5
TR513 ..... B5
TR514 ..... B5
TR601 ..... A2
TR602 ..... A2
TR603 ..... A2
TR604 ..... A2
TR605 ..... A2
TR606 ..... A3
TR607 ..... B2
TR608 ..... B3
TR609 ..... B3
TR701 ..... A1
TR702 ..... A1
TR703 ..... C1
TR704 ..... C1
TR705 ..... D1
TR706 ..... C1
TR707 ..... A1



PRINCIPAL PARTS LOCATION

ICS

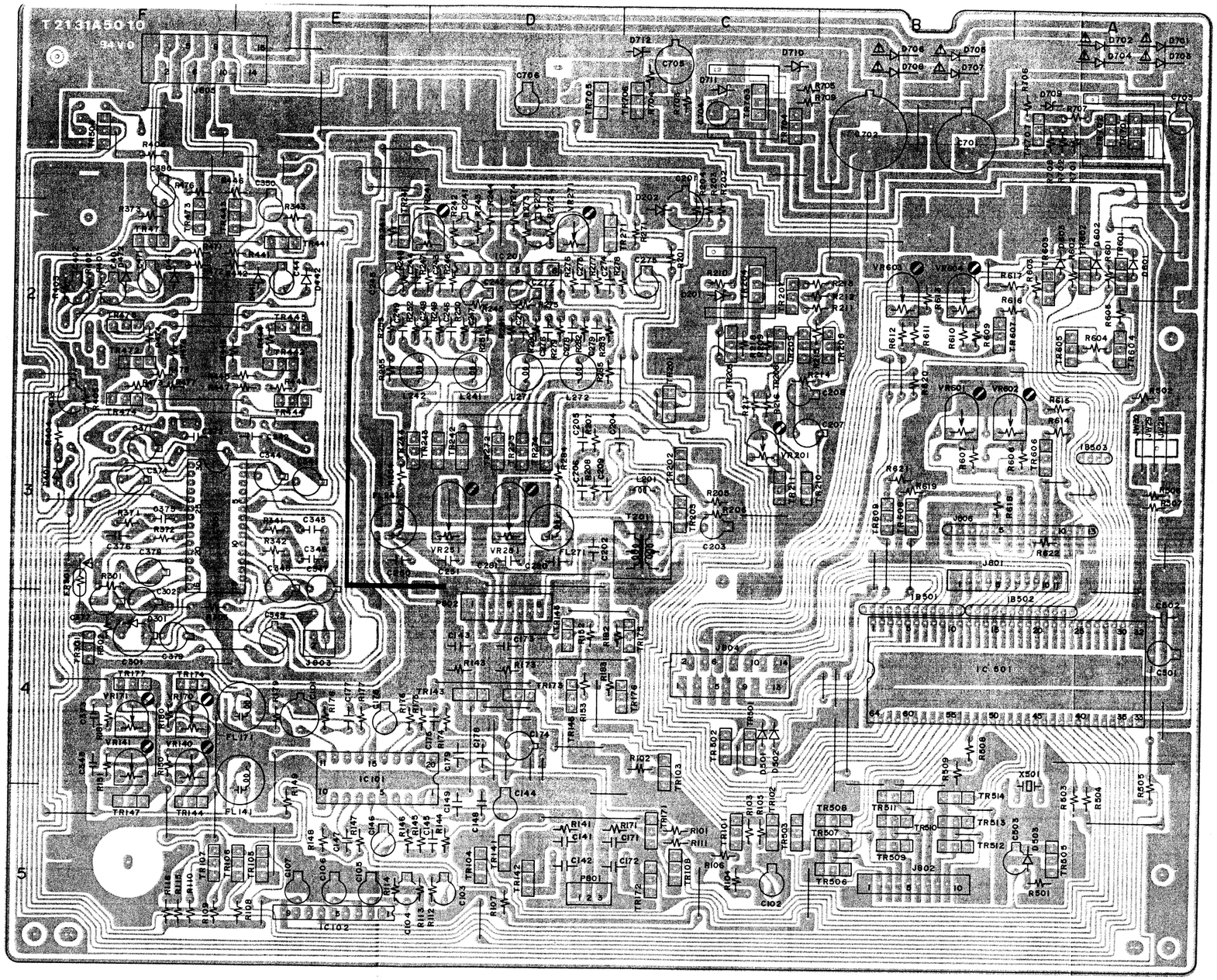
IC101	E4
IC102	E5
IC201	D2
IC301	F3
IC501	A,B4

CONNECTORS

J801	A3
J802	B5
J803	E4
J804	C4
J805	F1
J806	A3
P801	D5
P802	D4

TRANSISTORS

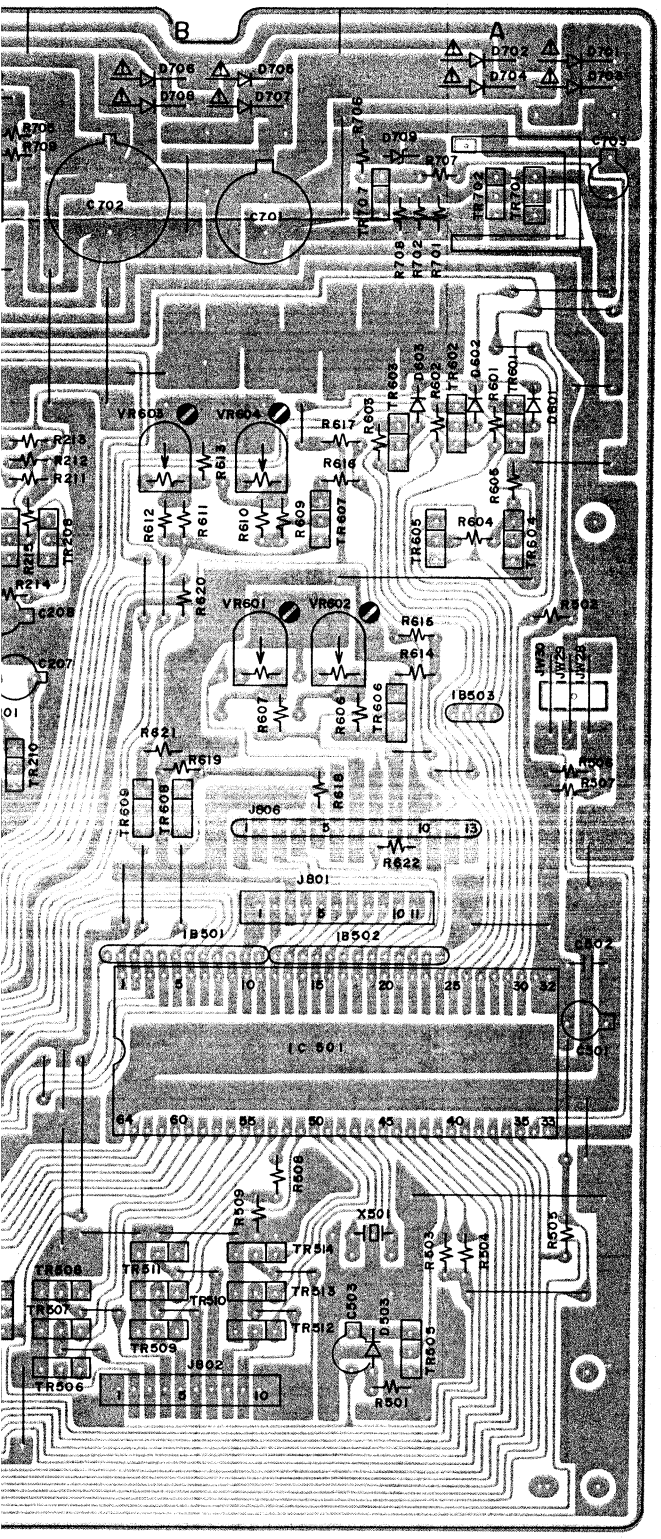
TR101	C5
TR102	C5
TR103	C4
TR104	D5
TR105	E5
TR106	E5
TR107	F5
TR108	C5
TR141	D5
TR142	D5
TR143	D4
TR144	F5
TR145	D4
TR146	D4
TR147	F5
TR171	C5
TR172	C5
TR173	D4
TR174	F4
TR175	C4
TR176	C4
TR177	F4
TR201	C3
TR202	C3
TR203	C3
TR204	C2
TR205	C2
TR206	C2
TR207	C2
TR208	B2
TR209	C2
TR210	C3
TR211	C3
TR241	E2
TR242	D3
TR243	D3
TR244	E3
TR271	D2
TR272	D3
TR273	D3
TR274	D3
TR301	F4
TR441	E2
TR442	E2
TR443	E2
TR444	E3
TR445	E2
TR471	F2
TR472	F2
TR473	F2
TR474	F3
TR475	F2
TR501	C4
TR502	C4
TR503	C5
TR504	F1
TR505	A5
TR506	B5
TR507	B5
TR508	B5
TR509	B5
TR510	B5
TR511	B5
TR512	B5
TR513	B5
TR514	B5
TR601	A2
TR602	A2
TR603	A2
TR604	A2
TR605	A2
TR606	A3
TR607	B2
TR608	B3
TR609	B3
TR701	A1
TR702	A1
TR703	C1
TR704	C1
TR705	D1
TR706	C1
TR707	A1

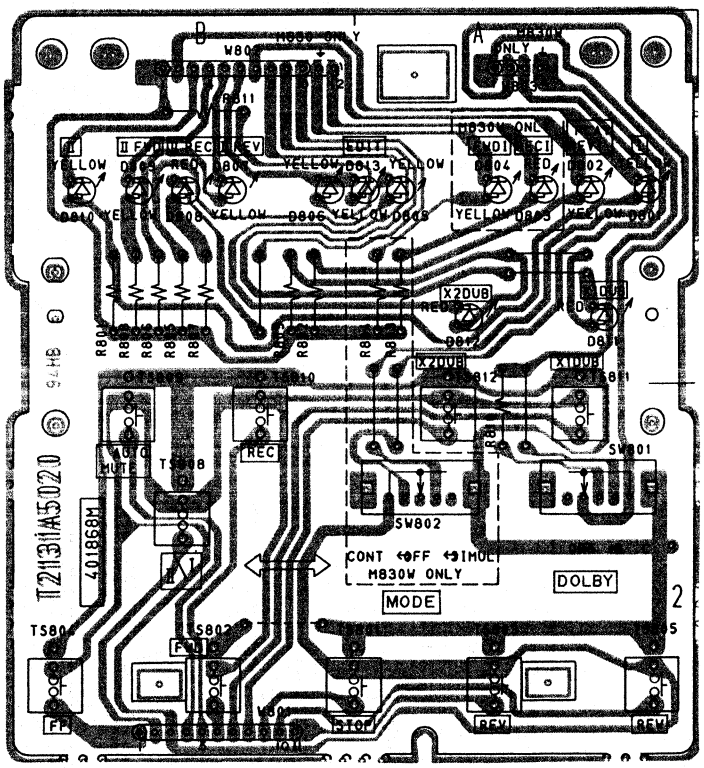


DECK A PCB T2131A5010

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT





OPERATION PCB T2123A5020

⚠RNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

⚠ERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT